

Audio Legend Bill Porter • Midge Ure's Home Studio • DAT, Part 5

U.S. \$4.95 CANADA \$5.95 **MAY 1989**

MIX

**Jazz on TV:
Inside "Sunday Night"**

**Troubleshooting:
AC Power Distribution**

THE RECORDING INDUSTRY MAGAZINE

**Directory: Northeast
Recording Studios**

**Digital Signal
Processors:
Who's Using What?**



**GRAMMY WINNER
TOM LORD-ALGE**

Add Sizzle to Every Reel



Studio C
PHOTOMAG, New York City
(212) 687-9030
Mixing Engineer, Peter Holcomb

You already know about Neve's great sound, but for today's post production, more and more flexibility is required to satisfy your client's needs. To be cost effective, a room must offer a wide range of formats, each under easy control.

Whether it's a 30-second promo or a two-hour movie in Dolby™ stereo surround, Neve's multiformat post production console – designed for ease of operation – makes for the perfect take every time.

Able to handle up to 4 stereo tracks simultaneously for mono or stereo TV or film LCRS, music, dialogue, effects and even laughs are only a push button away. Plus, Neve's

moving fader automation captures your every nuance, and the option to store and recall settings lets you finish

off yesterday's overrun in between today's rushes.

So whether you finish on full coat, one-inch or D2, now you can add sizzle to every reel.

THE NEVE POST PRODUCTION SERIES


A Siemens Company

CT: (203) 744-6230 NY: (212) 956-6464 TN: (615) 329-9584 CA: (213) 461-6383

Dolby is a registered trademark of Dolby Laboratories, Inc. World Radio History

Photography by Michael Partenio

FROM THE EDITOR

Founded 1977 by
David M. Schwartz and Penny Riker Jacob



Cover: Located in West Orange, New Jersey, House of Music features a Neve V Series console, Studer multi-tracks, and Tannoy and UREI speakers. The facility provides a full range of client services for record production, as well as audio for visual post-production for TV, music video, film and commercial advertising work. **Photo:** Michael Partineo.

DIRECTORY

153 Recording Studios of the Northeast U.S.

DEPARTMENTS

- 6** Current
- 8** Industry Notes
- 11** Sessions/Studio News
- 187** Classifieds
- 192** Ad Index



Circulation independently audited and verified by Business Publications Audit of Circulation since 1985.

Mix magazine is published at 6400 Hollis St. #12, Emeryville, CA 94608 and is ©1989 by NBB Acquisitions, Inc. *Mix* (ISSN 0164-9957) is published monthly. Subscriptions are available for \$38.00 per year. Subscriptions outside U.S.A. are \$48.00 per year. Single copy price is \$4.95, back issues \$6.00. Missed issues within the U.S. must be claimed within 45 days of publication date and abroad, within 90 days. Send subscription applications, subscription inquiries and changes of address to *Mix* magazine, PO Box 3714, Escondido, CA 92025-3714 or call one of these toll free numbers: in CA, 1 (800) 255-3302; outside CA, 1 (800) 334-8152. POSTMASTER: Send address changes to *Mix* magazine, PO Box 3714, Escondido, CA 92025-3714. Address all other correspondence to *Mix* magazine, 6400 Hollis St. #12, Emeryville, CA 94608. (415) 653-3307, Fax: (415) 653-5142. Second Class postage paid at Oakland, CA, and additional mailing offices. *Mix* magazine is distributed in pro audio stores, music stores and other related businesses. If you have a recording or music related business and would like to distribute *Mix*, please give us a call. Display advertising rates, specs and closing dates are available upon request. This publication may not be reproduced or quoted in whole or in part by printed or electronic means, without written permission of the publishers.

We in the recording industry,

as in most other businesses, find ourselves always competing, trying to be the best, trying to win. We'd prefer to land the big clients rather than see them go to the competition. Our careers have been built around the merging of musical sensibilities and technical energy, which is then driven by our desire to take business away from the *other* guy. Usually it works that way. But sometimes it doesn't.

A few months back, a colleague named Keith Worsley passed away, a victim of cancer. Keith suffered a long and expensive illness, and his family was not well-insured for such a tragedy. There are mountains of medical bills.

Fortunately, in the midst of this sad misfortune, Keith had many friends who sensed the difficulties faced by his family. Keith's unique spirit—concerned, fun-loving, caring, tuned in—began to transcend the differences among the competitors.

A good idea emerged from this climate. Several pro audio magazines agreed to pitch in on the publication of a special edition as both a tribute to Keith and a benefit for the family. The concept: to select a "greatest hits" package of editorial from the past 15 years of pro audio publishing. It is to be a "collector's edition," with primary distribution at key trade shows, beginning with the National Sound Contractors Association later this month.

Besides being a fascinating, entertaining and insightful read, this special project brings together somewhat competing groups of people in a beautiful, cooperative effort. For industry insiders, this is going to raise a few goose-bumps—and probably tickle some funny bones. It's the way Keith would have wanted it.

If you don't have a chance to find this special publication at a trade show, you may want to write us for information on how to get it. It promises to be a keeper.

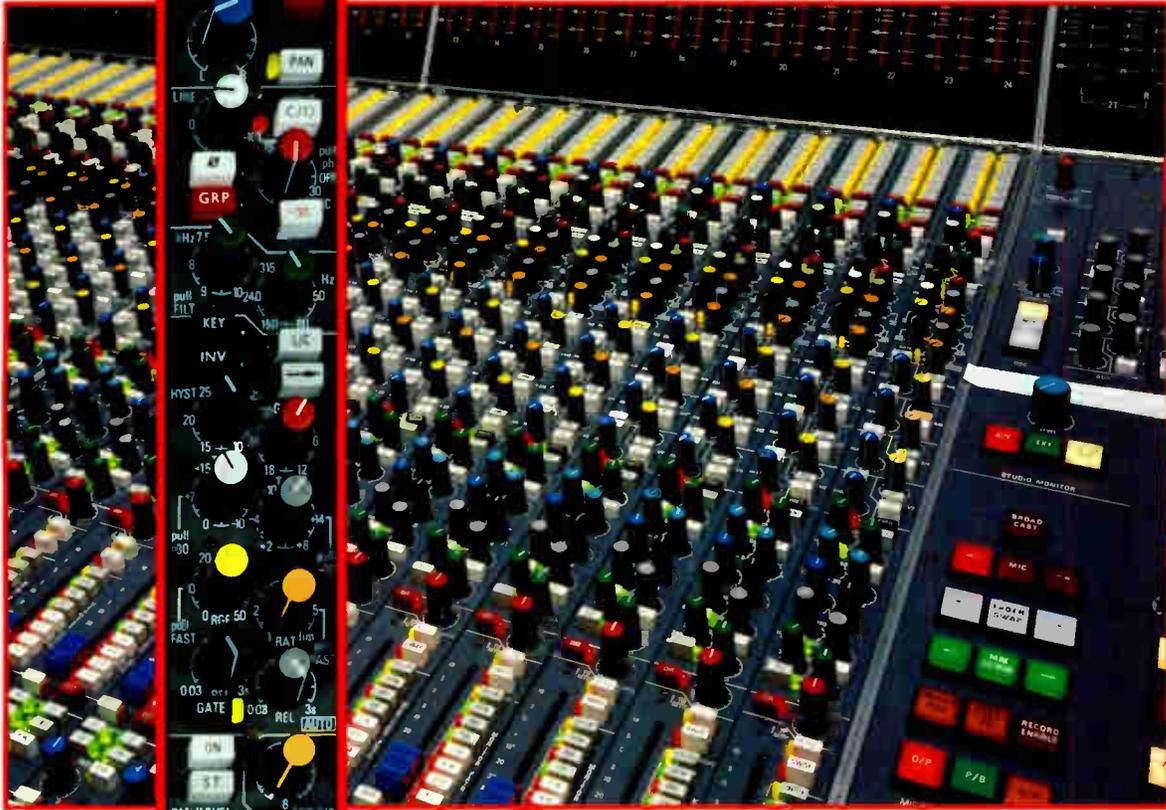
Keep reading,

David Schwartz
Editor-in-Chief

We Didn't Just Design
We Changed The



The Sweetest Mix...



The Neve V Series

If you haven't tried the Neve V Series console, you should know what you're missing:

- Only console with 48 balanced multitrack busses and 48 track monitoring, **PLUS**
- Famous Neve four-band parametric EQ with $\pm 18\text{dB}$ on all bands
- Powerful Dynamics section with limiter/compressor and gate/expander
- Revolutionary Flying Faders – the fastest automation system available
- Incomparable Grouping and Linking for absolute control



A Siemens Company

BERKSHIRE INDUSTRIAL PARK, BETHEL, CONNECTICUT 06801, U.S.A. • TELEPHONE: (203) 744-6230.
260 WEST 52ND STREET, NEW YORK, NY 10019, U.S.A. • TELEPHONE: (212) 956-6464.
6353 SUNSET BLVD., HOLLYWOOD, CALIFORNIA 90028, U.S.A. • TELEPHONE: (213) 461-6383.
1221 16TH AVENUE SOUTH, NASHVILLE, TENNESSEE 37212, U.S.A. • TELEPHONE: (615) 329-9584.
MELBOURN, ROYSTON, HERTS SG8 6AL, ENGLAND • TELEPHONE: ROYSTON (0763) 60776.
POSTFACH 326 A-1031, VIENNA, AUSTRIA • TELEPHONE: 43-222-72930.

Full Sail

The Official Training Center
for Neve V Series and Flying Faders

MIX

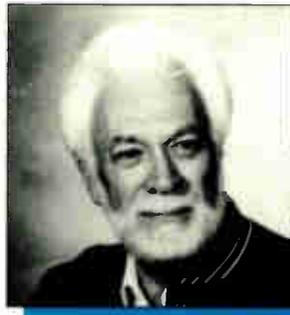
MAY 1989

THE RECORDING INDUSTRY MAGAZINE

VOL. 13, NO. 5



MIDGE URE PAGE 66



BILL PORTER PAGE 74



GRAMMY SOUND PAGE 121



POWER DISTRIBUTION PAGE 126

RECORDING

- 40** Digital Signal Processors in Northeast Studios
by Linda Jacobson
- 56** Producer's Desk: Grammy Winner Tom Lord-Alge
by Blair Jackson
- 64** Studio View: White Crow's Cue Mixing System
by George Petersen
- 66** Artist's Studio: British Hitmaker Midge Ure
by Iain Blair
- 82** International Update: News from Around the World

HISTORY

- 74** Lunching with Bonzai: Engineering Veteran Bill Porter
by Mr. Bonzai

TECHNOLOGY

- 49** Insider Audio: DAT, Part 5
by Ken C. Pohlmann
- 26** The Fast Lane: Motorcycle Media
by Stephen St. Croix
- 34** Juxtapositions: Making the Digital Connection
by Mel Lambert
- 140** After-Mix: Dolby Sees Extended Future for Cassette
by Philip De Lancie

PRODUCTS

- 87** Field Test: Roland E-660 Digital Equalizer
by Alan Parsons

- 92** Preview/Hot Off the Shelf

- 97** Auditions: Industrial Strength R-16; DigiTech IPS-33;
"Principles of Digital Audio"
by George Petersen

SOUND REINFORCEMENT

- 104** "Starlight Express" Delivers with No Strings
by Dan Daley
- 112** Sound Reinforcement News/On the Road
by Mark Herman
- 121** Sound on Stage: The Secret to Grammy's Success
by Mike Klasco
- 126** Troubleshooting: AC Power Distribution
by Mark Herman
- 132** New Sound Reinforcement Products

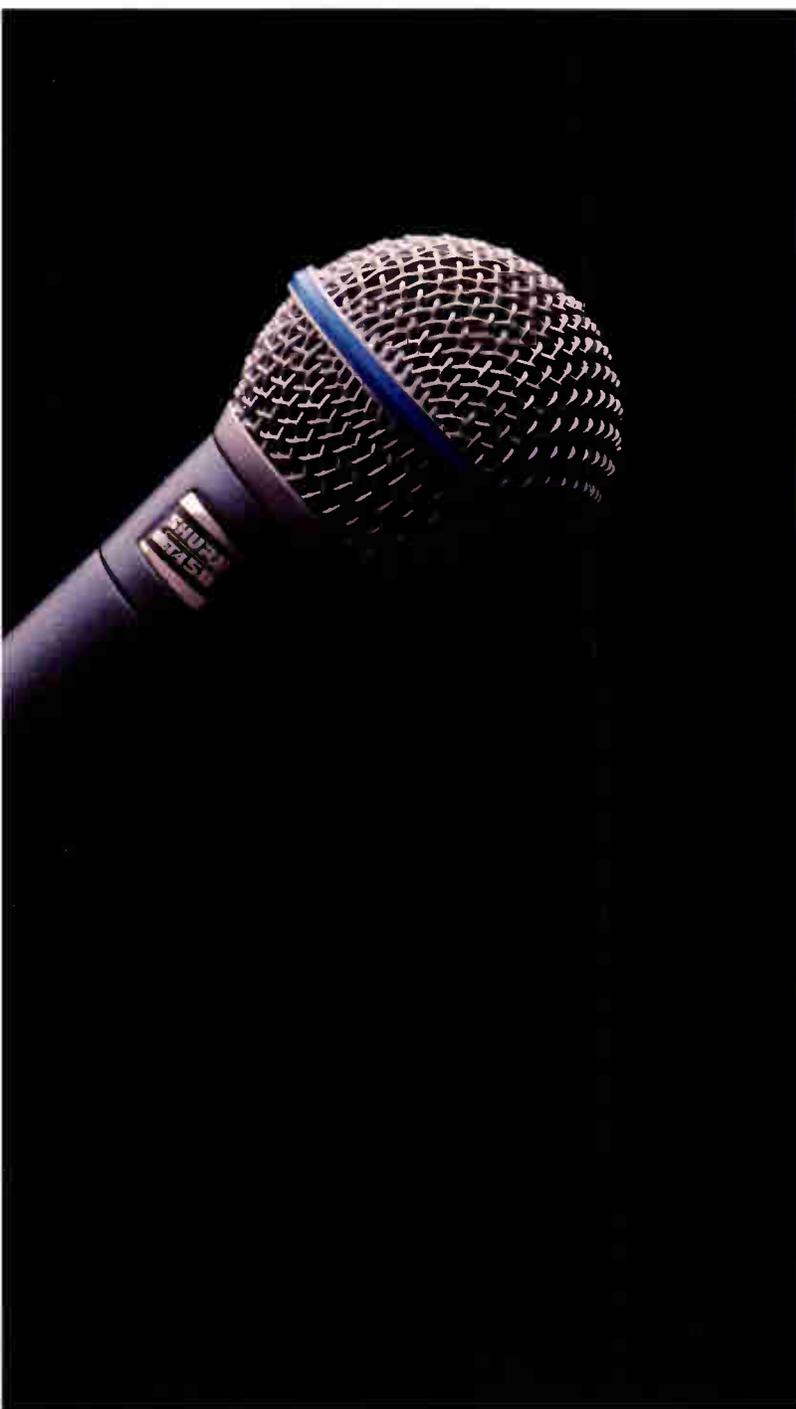
AUDIO-FOR-VIDEO

- 48** "Sunday Night": TV's Finest Music Program
by Robin Tolleson
- 146** Post-Script: Ringo Finds Oasis a Shining Station
by Dan Daley

MUSIC

- 133** MI Update: More News from NAMM
by Craig Anderton
- 134** Music & Recording Notes: The Feelies; Pete Bardens;
Musicians United for Armenia

A New Microphone. Future Of Sound.



The Beta 58 represents a significant advance in dynamic transducer design and a major breakthrough in microphone performance. Every measurable parameter has been optimized for unprecedented sound quality.

The Beta 58 microphone is the first to combine the extra-hot output of Neodymium with a true supercardioid pattern. The unique three-stage directional tuning network eliminates the irregular off-axis response displayed by other microphones. The result: greater working flexibility and extraordinary gain-before-feedback.

No other dynamic microphone has more usable power.

Another new performer is the Beta 57 instrument microphone. The Beta design provides outstanding isolation from unwanted sounds and freedom from off-axis coloration. All for more impact and separation in the mix.

Hear how a Beta Microphone can change the future of your sound. For our new brochure and the nearest dealer, call 1-800-257-4873. In Illinois, 1-800-624-8522. Shure Brothers Inc., 222 Hartrey Ave., Evanston, IL 60202-3696. The Sound Of The Professionals®... Worldwide.

SHURE®

New Beta 58™

CURRENT

HDTV 1125/60 GROUP MEETS NTIA

In response to an inquiry by the National Telecommunications & Information Administration (NTIA), the HDTV 1125/60 Group is making a strong case for the adoption of SMPTE 240M as a U.S. HDTV production standard.

"While other production standards are being suggested, only SMPTE 240M has been thoroughly developed," according to the Group. "Production equipment made according to this standard is now available and has been demonstrated as capable of satisfying the many diverse needs of U.S. industries."

The HDTV 1125/60 Group is made up of some 30 companies involved in the manufacture and use of HDTV 1125/60 production equipment. The standard the Group proposes is *not* the "NHK," or "Japanese," standard referred to in the NTIA notice of inquiry.

The standard was approved and adopted by the Society of Motion Picture & Television Engineers, who gave it the designation SMPTE 240M. It was then approved by the Advanced Television Systems Committee (ATSC) and the American National Standards Institute (ANSI).

For further information on the HDTV 1125/60 Group, contact Alec Shapiro at (212) 686-9000.

SPARS NATIONAL STUDIO EXAM

The Society of Professional Audio Recording Services will administer the National Studio Exam this month in ten cities across the country. The exam, developed to give individuals a means of evaluating their production knowledge, consists of 200 multiple-choice questions covering equipment maintenance/operation and session planning/setup.

The SPARS exam will be administered on May 13 in the following cities: Seattle, Miami, Los Angeles, San Francisco, Atlanta, Chicago, Boston, New York and Dallas. Denver will host the exam on May 20.

Those interested in signing up should contact SPARS executive director Shirley Kaye at (407) 641-6648.

TANNOY ACQUIRES AUDIX

TGI plc, the fully listed holding company of Tannoy, Goodmans and Mordaunt-Short, has announced the acquisition to the Audix Ltd. companies of Saffron Walden in Essex, England. The Systems Division of Tannoy Ltd. will be transferred to Audix, and a new company, Tannoy-Audix Limited will be formed, managed by the present managing director, J.A. Billett.

Audix designs, manufactures and markets sophisticated P.A. systems as well as broadcast equipment for radio, television and remote vehicles.

TGI chairman Terry Bennett says, "This represents the first step in TGI's strategy to strengthen manufacturing in areas not directly linked to consumer spending, and we intend to build on this basis as opportunities become available."

IN CONCERT AGAINST AIDS

On May 27, dozens of performers, music industry figures and other celebrities will gather at Oakland Stadium, Oakland, Calif., to present a major rock concert to raise money for the fight against AIDS. At press time, the confirmed line-up included the Grateful Dead, Huey Lewis & The News, Tracy Chapman, Los Lobos, Joe Satriani and Tower of Power.

In the week preceding the stadium show, other concerts and entertainment programs will take place throughout the San Francisco

Bay Area. All events will be videotaped, and highlights will be put together for a six-hour program to be broadcast on Saturday, June 17, on KRON TV (NBC).

The goal of this program—entitled "In Concert Against AIDS"—is to encourage a total community awareness of the AIDS problem, while offering a new perspective on the need for AIDS awareness and education. If you wish to make a much-needed donation, or would like more information, contact Catholic Charities at (415) 558-7140.

MANHATTAN CENTER TO HOST 1989 TEC AWARDS

Mix magazine has selected Manhattan Center Studios in New York City as the site for the fifth annual Technical Excellence & Creativity (TEC) Awards, to be held the opening night of the Audio Engineering Society Convention, October 19, 1989.

The TEC Awards, voted on by the readers of *Mix*, recognize outstanding technical and creative achievement in the recording and sound production industry. "We're looking forward to bringing the TEC Awards back to New York, where it began in 1984," said Hillel Resner, *Mix* publisher and TEC executive producer. "This will be our biggest show ever, and we think Manhattan Center is the ideal location."

Manhattan Center Studios is located at 311 W. 34th Street, New York City. For more information, contact Karen Dunn or Tom Kenny at (415) 653-3307.

MIX-UPS?

The January 1989 directory of Northwest 24-track recording studios erroneously listed two phone numbers for C.D. Studios of San Francisco. The correct number is (415) 285-3348. Sorry about that. . . ■

Feature Shock!

Otari's new MX-50. Built around the premise that you can have everything you ever wanted in a two-track tape machine, and still stay within your budget. For example:

The Transport

—DC quartz PLL capstan motor with front panel selection of operating speeds (from either a 15/7.5 or 7.5/3.75 ips speed pair).

—Capstan speed variable by $\pm 7\%$ from the front panel, and by $\pm 50\%$ from SMPTE

time-code external controllers via an Otari-standard 37-pin connector.

—Optional remote control.

The Electronics

—Lighted VU meters with peak-reading LED indicators.

—Transformerless active balanced inputs with XL-type connectors.

—Optional Voice Editing Module (VEM) for twice normal play speed with normal pitch.



A built-in tape timer displays current tape position in hours, minutes, and seconds, and includes a search-to-cue locator with cue point and zero location memories.

Otari's MX-50. For whenever or wherever you need a professional

audio machine at an affordable price.

For more information, call your nearest Otari professional audio dealer, or Otari Corporation at (415) 341-5900.



1/5" reel size capacity with self-centering NAB hub locks.

$\pm 7\%$ vari-speed.

Capstan speed controllable $\pm 50\%$ via SMPTE time-code external controllers.

Tape drive tachometer for accurate tape time display, and for external synchronizer or controller interface via Otari-standard 37-pin connector

Optional Voice Editing Mode (VEM) for twice normal play speed with audio pitch shifted down one octave for normal pitch.

DC quartz PLL capstan motor with front panel selection of operating speeds.

Cast alloy deckplate.

Independent reel size selectors for supply and take-up motors

Lighted VU meters with peak-reading LED indicators.

Headphone amplifier with front-panel headphone jack and level control

Optimized record and reproduce heads

Switch-selectable NAB/IEC EQ with front panel indicator.

Lifter defeat with momentary or locked operation

INDUSTRY NOTES

GML, Inc. has moved to 8721 Burnet Ave., Van Nuys, CA 91405; (818) 781-1022, FAX: (818) 781-3828. Joining GML as vice president of marketing and sales is **Cary Fischer**. . . **Robert V. Wray, III** was named senior vice president of marketing and sales of **Philips and Du Pont Optical's** restructured audio/video products group and will work out of its NYC headquarters. . . **Piers Plaskitt** is now in charge of **Solid State Logic's** U.S. operations, following his promotion to chief executive officer. Other recent changes include **Chris David**, film products manager, who moved from Oxford, England, to the company's Western regional office in Los Angeles, and new product development manager **Dave Collie**, who has relocated from Los Angeles to Oxford. . . **BroadcastAsia 90** will be held at the World Trade Centre, Singapore, from May 29 to June 1, 1990. For information, contact Kallman Associates, (201) 652-7070, FAX: (201) 652-3898. . . Over 200 music-related exhibits can be found at **Music Expo '89**, to be held May 12-14, 1989, in Pasadena, CA, (213) 657-2211. . . Quebec's **Americ Disc** opened a sales office in NYC to expand its optical disk replication services. **Lisa Schraml** will head the office as director of marketing and sales. . . **Gus Skinas** was promoted to senior product manager, professional audio, of **WaveFrame Corp.** in Boulder, CO. In other WaveFrame news, **Dave Frederick** is now product manager, music applications, and **Mike Buffington** has joined as director of field engineering. **Chris Damon**, as European support manager, heads the newly established WaveFrame Europe Service out of Copenhagen, Denmark. Former Zappa engineer **Arthur "Midget" Sloatman** was appointed field engineer in Boulder. . . **American Interactive Media** named **Laura Foti Cohen** vice president of creative affairs in Los Angeles. . . In Austin, the city council established the **Austin Federation of Musicians**, a volunteer commission that will advise the council on music issues and oversee planning of a district offering special incentives to music-related

companies. . . **Osamu "Sam" Inoue** has been named the head of **Fuji Photo Film U.S.A., Inc.** out of Elmsford, NY, following **Koichi "Bernie" Yasunaga's** promotion to general manager, international marketing division, of Fuji Photo Film Co., Ltd. in Tokyo. . . Los Angeles audio services company **52nd Street, Inc.** named **John Davis** as account executive and **Michael Abraham** as traffic manager. . . **LD Systems, Inc.** of Houston, distributor of pro audio gear, added the **IMS Dyaxis** and **Lexicon Opus** to its product line. . . **Lawrence DeMarco** has joined **Korg U.S.A., Inc.** as product development manager in Westbury, NY. . . Wheaton, MD-based **Washington Professional Systems** now represents **Lexicon Opus Digital Production Systems** as its authorized agent in the MD, DC, WV and VA regions. . . **Rich Thorne** has been named chief operating officer of **The Post Group, Inc.** in Hollywood, CA. . . **Marianne Smith** joined **Audio Products, Inc.** as controller in Springfield, VA. . . In White River Junction, VT, **Steven Strassberg** has been named Eastern division manager at **New England Digital**. . . **The Centre for Music Technology** opened as an in-house school for **Pi Keyboards & Audio** in Cleveland, combining courses on the newest electronic equipment and traditional subjects such as music theory. Phone (216) 741-1400. . . Archivists take note: **David Miles Huber** of **Playback Communications** is compiling a book on the history of recorded sound, written for the audio/video professional. Send photos, articles or suggestions to PO Box 1100, La Conner, WA 98257, (206) 328-4835. . . **QSC Audio Products** of Costa Mesa, CA, appointed **Patricia Daniels** as sales administrator. . . New design projects for **Steve Durr** of **Steven E. Durr & Associates**, Nashville, included Windmark Recording Studio in Virginia Beach, Concept Recording Studio in Birmingham and Perfect Pitch Recording of Hickory, NC. . . Software-based audio consoles manufacturer **Orion Research, Inc.** hired **George Stage** as director of engineering in Cleveland.

STAFF

EDITOR-IN-CHIEF David M. Schwartz
PUBLISHER Hillel Resner

MANAGING EDITOR Blair Jackson
ASSOCIATE EDITOR Paul Patyen
PRODUCT EDITOR George Petersen
TECHNICAL EDITOR Ken Pahlmann
SENIOR EDITOR John Woram
CONSULTING EDITOR Stephen St. Croix
EDITOR-AT-LARGE Mr. Bonzai
SOUND REINFORCEMENT EDITOR Mark Herman
ASSISTANT EDITORS
Karen Margroff Dunn Linda Jacobson
COPY EDITOR Tom Kenny
EDITORIAL ASSISTANTS
Alexandra Behr Jeanne Zanusni
CONTRIBUTING EDITORS
Iain Blair Lou CasaBianca Dan Daley
Philip De Lancie Bob Hodas Mel Lambert
Larry Oppenheimer Bruce Pilato Tony Thomas

ART DIRECTOR Tim Gleason
ASSOCIATE ART DIRECTOR Dave Marrs
ASSISTANT ART DIRECTOR Patricia Law
PRODUCTION MANAGER Georgia George

ADVERTISING DIRECTOR Ron Taff
ASSISTANT ADVERTISING DIRECTOR
EASTERN AD MANAGER Jeffrey Turner
SOUTHERN CALIFORNIA/SOUTHWEST AD MGR.
Sue Horwitz
NORTHWEST/NORTH CENTRAL AD MGR. Harton Firmin
SALES ASSISTANTS
Randy Alberts Carol McMurray Robin Saunders
SALES ADMINISTRATOR Neil McKamey
CLASSIFIEDS MANAGER Robin Boyce
CLASSIFIEDS ASSISTANT Jenny Hoogstrate

DIRECTOR, INFORMATION &
MARKETING SERVICES
Ron Neilson

DIRECTORIES & BUSINESSPAGES!
ADVERTISING MANAGER Lauri Newman
DIRECTORIES ASSISTANTS
Jean Mahon Melissa McMillan Ginger Green

PRODUCTION DIRECTOR Anne Letsch
PRODUCTION ASSISTANT Teri Bell
ASSISTANT TO THE PUBLISHER Jane Byer
ADVERTISING TRAFFIC COORDINATOR Donna Burrleston
TYPOGRAPHY
Linda Dierking Constance Wiggins
Lynn McCormick Tim Curran
CIRCULATION MANAGER Mark Gunther
CIRCULATION ASSISTANTS Cindy Lukk Hugh Swarts
CONTROLLER Craig Kennedy
ACCOUNTING SUPERVISOR Jan Stimmel
ACCOUNTS PAYABLE Erika Grant
ACCOUNTS RECEIVABLE Lea Lewis
OFFICE MANAGER Barbara Kochlovelos
RECEPTIONIST Angelique McGruder

ACT III PUBLISHING

PRESIDENT Paul David Schaeffer
SENIOR VICE PRESIDENT, TECHNICAL DIVISION
Kevin J. Condon
SENIOR VICE PRESIDENT, CORPORATE DEVELOPMENT
& PLANNING Martha Lorini
VICE PRESIDENT, FINANCE & ADMINISTRATION Sam Schecter
DIRECTOR OF PLANNING Mark Gunther
ACT III PUBLISHING, TECHNICAL DIVISION
ALSO PUBLISHERS OF:
ELECTRONIC MUSICIAN
CORPORATE VIDEO DECISIONS
BME
WORLD BROADCAST NEWS

AN ACT III PUBLICATION

NATIONAL EDITORIAL ADVERTISING and BUSINESS OFFICES,
6400 Hollis St. #12, Emeryville, CA 94608, (415) 653-3307, IMC
736, FAX: (415) 653-5142 SOUTHERN CALIFORNIA ADVERTISING
OFFICES, 19725 Sherman Way, Suite 160, Canoga Park,
CA 91306, (818) 709-4662, DIRECTORIES ADVERTISING, (800)
344-LIST.

**SO SMART,
IT SPEAKS
A SECOND
LANGUAGE.**

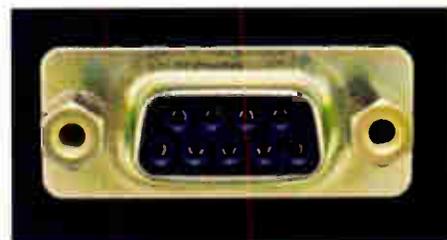


Now, there's an audio recorder that talks video. The APR-5003V.

You can actually control the APR-5003V with a video editor. Because its 9-pin serial port communicates with Sony's BVE-9000 or BVE-900 editors. And ease of control is just one of many advantages for video post production.

The APR-5003V also offers a wide range of synchronization features, including resolve on play. Chase synchronization. Timecode generation with video reference. And offset with bit resolution.

Of course, the first language of any audio recorder is



9-pin serial port for control by Sony video editors BVE-9000 or BVE-900.

still audio. And you get the superb sonic quality you'd expect from Sony.

If you're in post production, and you're in the market for an analog recorder, remember whom to speak to. Contact your Sony Professional Audio Representative. East (201) 368-5185; West (818) 841-8711; Central (312) 773-6001; South (615) 883-8140.

Sony Communications Products Company, 1600 Queen Anne Road, Teaneck, NJ 07666. © 1989 Sony Corporation of America. Sony is a registered trademark of Sony.

SONY®

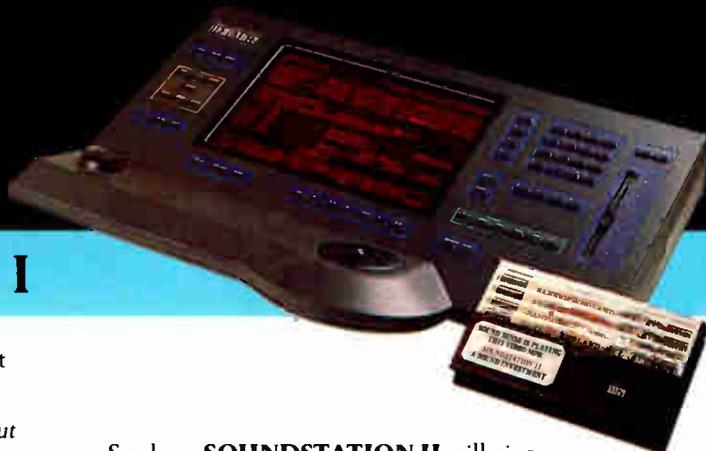
PROFESSIONAL AUDIO

SOUNDSTATION II... Now with TIMEWARP™



Digital Audio Disc Recorder and Production Centre

SOUNDSTATION II



SOUNDSTATION II, the unique Digital Audio Editing and Post Production System from DAR, now offers Stereo TimeWarp!

Permitting superb quality time compression and expansion *without pitch change*, TimeWarp complements **SOUNDSTATION II**'s vast repertoire of rapid and transparent editing capabilities. From simple spotting of sound effects to timecode, to complex dialogue and soundtrack editing,

SOUNDSTATION II offers unparalleled power, speed and ease of use.

- Fast "tapelike" Recording and Editing
- All Editing on one Display - No Paging or Menus
- Instant Copy, Loop, Cut, Paste, Gain and Crossfade
- Scrolling Preview of Audio
- Digital and Analogue Inputs and Outputs
- 8 Track Hours in 9 Rack Units
- Affordable configurations for every application

See how **SOUNDSTATION II** will give your studio the competitive edge in - Video and Film Post Production - Multitrack Music - Dialogue Editing - CD Mastering. **Phone DAR for a free demonstration video tape now!**

U.S.A. Tel. No: (213) 466 9151

U.K. Tel. No: (03727) 42848

DIGITAL AUDIO RESEARCH
DAR

SESSIONS AND STUDIO NEWS

NORTHEAST

Producers **Zahid Tariq** and **Hector "Ziggy" Gonzalez** were at **Power Play Studios**' new MIDI suite in Long Island City, cutting tracks with artist **Jose "Coro."** The 12-inch single "Where Are You Tonight?" was engineered by **Norty Cotto**, assisted by **Yianni Papadopoulos**. . . **Prime Cuts Studios** in New York City has been busy editing several Arista projects, including **Sarah McLachlan**'s "Trust" and **Strength**'s "Breaking Hearts," edited by **Tuta Aquino**, and **Kenny G**'s "We've Saved the Best for Last," edited by **Glen Barrapp**. . . Producer **Eddy Davis** brought New York Jazz artist **Cynthia Sayer** to **39th Street Music** to work on an album featuring Sayer's talents as a vocalist and banjo player. **Richard Kaye** was at the board, with **Ed Douglas** assisting. . . **Buster Poindexter** was back at **Skyline Studios** in Manhattan with producer **Hank Medress** and engineer **Bill Scheniman** to record and mix his new RCA LP. . . **Native Jam**'s **Frank Doyle** and **John Mitchell** arranged and produced three tracks for singer **Bette Scofield**, with the assistance of **Steve Bailey**, at **Pyramid Recording Studios** in NYC. **Hugo Dwyer** mastered the controls, assisted by **Angela Dryden** and **Doron Lev**. . . Jazz saxophonist **Nathan Davis** recorded and produced his latest album at **Alphastar Studios** in McKeesport, PA, with **Bobby Davis** assisting on the production, **Robert "Buzz" Leffler** engineering and **Mark Harbst** mixing. . . **Power Station Recording Studios** in the Big Apple hosted producer **Brian Holland**, who was in mixing three songs on **Cassandra**'s debut album for the HDH label. . . **A Tribe Called Quest** was at **Calliope Productions** in NYC laying tracks for Geffen Records, with engineer **Shane Faber** at the controls. . . **Greg Smith** was at **Quantum Sound Studios** in Jersey City, NJ, to overdub and mix the new **Little Steven** release for BMG Rec-

ords. Smith made full use of the Synclavier and available keyboards. **Mark Pawlowski** assisted with the Synclavier, and **Steve Sisco** assisted with the mix. . . **David McCallum** (*The Man from U.N.C.L.E.*, *The Great Escape*) was recently at **New York Audio Productions** recording narration for a Random House Audio Book, James Michener's *Journey*. **Paul Barboza** engineered the session and **Robert Kessler** produced. . . Recent album projects at **Home Base Sound Studios** in NYC (formerly Secret Sound) included **Ruben Blades**' *Nothing But the Truth* on Elektra and the **Violent Femmes**' *3* on Warner Bros. . . **Sound Logic Studios** in Silver Spring, MD, has been busy working on several gospel albums for Anointed Music with producers **Danny McCrimmon** and **Rickey Payton**. . . **Paul Simpson**, producer of the Number One dance hit "Respect" by **Adeva**, was at **Blank Productions** in Stamford, CT, producing a new record by artist **Simphonia**. . . Producer **Justin Straus** was in at **I.N.S. Recording** in New York City working on overdubs for the remix of "Promises" by **Basia** on CBS/Epic. **Eric Kupper** was on keyboards and **Gary Clugston** was at the board. . .

The **Jamaica Boys** were at **Sound on Sound Recording** in Manhattan cutting basics and overdubs for their second Warner Bros. release. Engineer **Ray Bardani** took the controls, with **Peter Beckerman** assisting. . . **Pussy Galore** completed recording and mixing their new album for Caroline Records at NYC's **Baby Monster Studios**. **Jon Spencer** produced, **Wharton Tiers** engineered and **Steve Albini** mixed. . . Elektra Records artists **Beat Noir** were in **Greene Street Recording**'s Studio B finishing up a new LP. **George Daily** produced, with **Rod Hui** on the faders, while **Chris Shaw** performed editing magic on the project. . . **Madonna**'s single "Like A Prayer" was recently remixed at **Sound Works Digital Studios** in New York. **Shep Pettibone** post-produced and remixed, **Michael Hutchinson** engineered and **David Way** assisted. . . **John Smith** of Cabot Syndication was at **SounTec Studios** in East Norwalk, CT, producing several radio spots for New England Telephone and Illinois Bell. **Peter Hodgson** and **Myles Davis** engineered. . . On Stage Management recording artist **Daydream** was recording at **On Track Sound Productions** in



At San Francisco's Soma Sync Studios last month was vocalist/bassist Jack Bruce, cutting his upcoming release. Pictured here are engineer/producer Joe Blaney, guitarist Jimmy Rip, Bruce, and Soma Sync operator Steve Savage, engineer/producer.

PHOTO: SHERRI LEI

Only One.



Now you need only one microphone to cover a whole range of tasks. The Josephson C-602 has our new vacuum-deposited gold condenser capsule with selectable omni and cardioid directional patterns. Select bass rolloff or flat response for close-up or for field use. The wide dynamic range and very low noise make it suitable for all kinds of sound environments. The \$400 price makes it suitable for all kinds of sound budgets. It's made in Germany by MB Electronic, famous in European broadcast, recording and film studios since 1966. Hear it at your favorite pro audio dealer, or call us for more information.



JOSEPHSON ENGINEERING
3729 Corkerhill,
San Jose, Calif. 95121
(408) 238-6062

NYC. **Paul Carigliano** handled production chores with **John Allen** and **Chuck Vincent** at the controls. . . Also in New York, Tommyboy artists **TKA** were at **D&D Recording** working on tracks and vocals for their upcoming album, with **Mike Rogers** engineering and **Craig Marcus** assisting. . . **Studio 4 Recording** in Philly reports that Geffen Records' newest rap act **Silk X Leather** were in mixing their first 12-inch with **Joe "The Butcher" Nicolo** at the controls. . . Congratulations to **Normandy Sound** in Warren, RI, artists **New Kids on the Block**, producer **Maurice Starr** and engineer **Phil Greene** for their CBS album *Hangin' Tough* being certified gold. . .

NORTH CENTRAL

Hatchery Studios in Warren, MI, recently completed a 31-song album project by **Code Blue**, a Detroit-based blues band. . . Campau Advertising was at **Studio A** in Dearborn Heights, MI, working on radio spots for Meijers with Grammy Award-winning vocalists **Vicky and BeBe Winans**. **Michael Brooks** composed the spots and **John Jaszcz** engineered. . . Cleveland's **Pat Dailey** was at **Audio Recording Studios** putting finishing touches on his latest LP, *Man Overboard*, with **Alex Bevan** producing and **Bruce Gigax** engineering. . . GIA Publications artist **David Haas** recorded a double album project at Minneapolis' **Metro Studios**, with **Tom Tucker** engineering. Assisting were **Tommy Tucker Jr.** and **Julie Gardeski**. . . Death metal bands **Aftermass** and **Lethal Militia** completed mixes of their debut EPs at **the Disc Ltd.** in East Detroit. **Jim Michewicz**, **Mike Harrell** and **Joe Swieczkowski** engineered. . .

NORTHWEST

Producer **Ken Caillat**, jazz musician **David Becker** and artist/composer **Peter Buffett** got together with Narada Mystique/MCA artist **Spencer Brewer** at **Independent Sound** in San Francisco to work on Brewer's latest LP. . . Also in SF, **Monks of Doom**, featuring members of Camper Van Beethoven and The Ophelias, were at **Mobius Music** cutting tracks for their upcoming LP on Rough Trade Records. The sessions were engineered by **Oliver Di Cicco**, assisted by **Jane Scollieri**. . . **Marley's Ghost** finished up their second digitally recorded album at **Sage Recording** in Arlington, WA. **Ed Brooks** engineered. . . **Pete Scaturro** of **Different Fur Recording** has been busy scor-

ing the TV soundtrack for *Unsolved Mysteries* with Music Design of San Francisco. He's also at the studio working on a new album for **Chris Isaak** on Warner Bros. . . A joint collaboration between **Bob Dylan** and the **Grateful Dead** was mixed on a new Neve V Series console at **Club Front**, the Dead's private facility in San Rafael, CA. . .

SOUTHERN CALIFORNIA

Jorge Martin brought his studio crew, **Earthquake Posse** (a tribute to The Waiters), to **Clear Lake Audio** in North Hollywood. **Jeff Frickman** engineered the sessions. . . Virgin recording artists **After 7** were tracking at **Elumba Studios** in L.A., with **L.A. Reid** and **Babyface** producing. The album was engineered by **Jon Gass**, with **Donnell Sullivan** assisting. . . Jazz saxist **Richard Elliot** finished cutting tracks and started mixing his new album at **Valley Center Studios** in Van Nuys. **John Kliner** engineered and **Steve Miller** assisted. . . Things were hopping at **Sunset Sound** in Hollywood, where former Go-Go **Charlotte Caffey** was in tracking her new A&M release with **Ellen Shipley** producing, **Mark McKenna** engineering, and **David Knight** and **Brian Soucy** assisting. Also at Sunset Sound, actress **Michelle Pfeiffer** was recording vocals for the upcoming 20th Century Fox release *Fabulous Baker Boys*. **David Glover** and **Bob Schaper** engineered, with assistance from **Mike Kloster** and **Scott Woodman**. . . Producer **Peter R. Kelsey** was at **Hit City West** in L.A. recording and mixing the psychedelic crunch rock of **Shiva Burlesque**. **David Tobocman** and **John David Hiler** assisted. . . **Babylon Warriors** were at **NRG Recording** in North Hollywood mixing their new album with **Carl Peterson** engineering. . . King Records recording artist **Kaho Shimada** recorded her debut LP at **Kren Studios** in Hollywood with producer **Tim Weston**. **Rober Nichols** engineered the sessions with associate **Russell Bracher**. **John Coda** assisted. . . In Westlake Village, **Paul Young** started recording his album at **41-B Recording Studios**, with **Peter Wolf** producing and **Bino Esponosa** at the console. . . **El Debarge** was at **Galaxy Sound Studios** in Hollywood preparing for his upcoming video to support his new album, *Gemini*, for Motown Records. . . **Kool & the Gang** were busy at **Aire L.A.** mixing tracks for their upcoming PolyGram LP. **Chuckii Booker** produced, **Craig Burbidge** engineered and

Anthony Jeffries assisted. . . In Hollywood, **Paramount Recording Studios** reports that reggae artist **Eek-A-Mouse** was in doing the title track for the film *Jammin'*, with **Mike Schlesinger** at the controls. . . **Toni Childs** was at **Genetic Music** in North Hollywood mixing backing tracks for her new song "Many Rivers to Cross," to be performed on her upcoming world tour. **Richard Rosing** engineered the project. . . Grammy Award-winning engineer/producer **Tom Lord-Alge** was at L.A.'s **Larrabee Studios** mixing "Motivator" by **Spandau Ballet** for CBS International. **Sylvia Massy** assisted. . . 20th Century Fox artist **Nancy Wilson** was at **Skip Saylor Recording** in Los Angeles working on the tune "All for Love," with **Ritchie Zito** producing and mix-master **Chris Lord-Alge** running the controls. . .

SOUTHWEST

Country/folk artist **Tish Hinojosa** was at **Fire Station Studios** in San Marcos, TX, working on her first album for A&M Records. The project was produced by **Steve Berlin** (Los Lobos) and engineered by **Gary Hickinbotham** and **Jay Hudson**. . . **Omar & the Howlers** were working with producers **Stewart Sullivan** and **Mike Stewart** at **Arlyn Studios** in Austin. . . Also in Austin, **Penny Hanna** was recording at **Soundpost Productions**, and **Zydeco Ranch** was at **Wylldwood Studios**. . .

SOUTHEAST

Kingsnakes were at **Soundshop Recording Studios** in Nashville with producer **Kenny Vance** and engineer **Mike Bradley** working on the soundtrack for *Heart of Dixie*. Also, **Tammy Wynette** was in mixing her new album for CBS with producer **Norro Wilson** and engineer **Pat McMakin**. . . **Rise' Walden** was at **New Memphis Music** to record the song "With Your Best Shot." **Kurt Clayton** produced and **Niko Lyras** engineered. . . **Joyce Irby** continued work on several projects at **Musiplex** in Atlanta, including producing **The Ladds** for Warner Bros. and **Brand X** for MCA, plus working on her solo album for MCA/Motown. . . **Herbie Hancock** made a guest appearance on the debut LP from **Nestor Torres**. **Mike Couzzi** engineered the sessions at **Criteria Recording Studios** in Miami, with **Mike Spring** assisting. . . **Janie Frickie** was at **The Bennett House Studios** in Franklin, TN, with producer **Chris Waters** working on an album



AUTOMATE the LARC

USE THE CLARITY XLV AND A MIDI SEQUENCER TO AUTOMATE THE 224XL, 480L and RMX-16

* Automate right from the LARC * MIDI to CV outputs to automate DDL's
* The innovation you would expect from the designers of the Lexicon MRC

Call Clarity or your pro audio dealer

CLARITY : MIDI FOR THE PROFESSIONAL
Nelson Lane • Garrison • NY 10524 • 914-424-4071

Circle #065 on Reader Service Card

The art of shaping sound.

SONEX is a high-performance acoustical foam that upgrades your studio inexpensively. Ideal for a temporary isolation booth, it can also eliminate slap echo and harsh resonances in the main room or silence noisy tape equipment in the control booth. Write for our color brochure today.

See us at NSCA Booth 239



Alpha Audio

2049 West Broad Street
Richmond, Virginia 23220 USA (804) 358-3852
Telex: 469037 (ALPHAUD CI) FAX: (804) 358-9496

Acoustic Products for the Audio Industry

Circle #066 on Reader Service Card

Before After



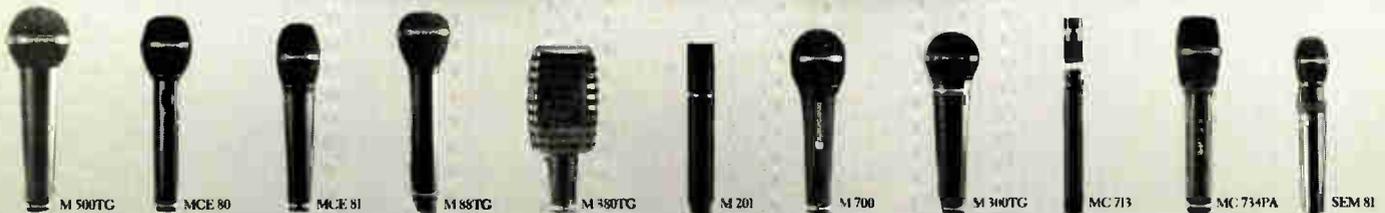
Before a microphone can qualify as a great road mic, it has to be a great mic, period. Above all, it must deliver the natural sound of voices and instruments accurately.

Beyer TourGroup microphones like this brand new M 700 are designed to do just that. Beyer engineers apply a range of approaches—dynamic, ribbon, condenser—with the single-minded dedication to uncolored reproduction that characterizes the entire Beyer line. Whether you're miking voices or instruments, acoustic or electronic sounds, there's a TourGroup mic designed to do the job as well as it can be done.

After we make TourGroup mics sound great, we design them with the durability to handle the road. After 158 setups and load-outs with The Fabulous Thunderbirds' stage crew, 158 overnight long hauls, 158 high-energy shows, it's hard to see the difference between the out-of-the box M 700 on the left and this one—the one that was "Tuff Enough" for Kim Wilson.

More importantly, it's even harder to *hear* the difference. But that's something you'll have to prove to yourself. Fortunately, every time you put a TourGroup microphone to the test, you can take advantage of unparalleled Beyer sound.

Whether the road takes you across the country or across town, there's a Beyer TourGroup microphone designed to enhance your performance. For further information on Beyer TourGroup microphones, call beyerdynamic or audition one at your Beyer TourGroup dealer.



TourGroup

beyerdynamic

United States: 15-05 Burns Avenue Hicksville, NY 11801 Tel. (516) 935-8000

Great Britain: Unit 14 Cliffe Industrial Estate Lewes, Sussex BN8 6JL
Tel. 0273 479411 Fax: 0273 471825

Canada: 4190 rue Seré St.-Laurent, Québec H4T 1A6 Tel. (514) 341 69 33

Australia: 356 A-358 Eastern Valley Way Chatswood N.S.W. 2067
Tel. (02) 417 7088 Fax: (02) 417 7374

Circle #140 on Reader Service Card

World Radio History

project for CBS Records. **Mike Psanos** was at the faders with help from **Shawn McLean**. . . In Nashville, **Music Mill** reports that **Marie Osmond** was in starting work on her new album for Capitol, with **Jim Cotton** and **Paul Goldberg** engineering and **Jerry Crutchfield** producing. . . Members of **Kansas** stopped by Atlanta's **SoundScape Studios** to oversee a *King Biscuit Flower Hour* project. Engineering was handled by **Brendan O'Brien**, with **Tag George** assisting. . . **Roger McGuinn**, formerly of The Byrds, recently completed a demo project at **Florida Sound Recording Studios** in Clearwater, FL, engineered by **Vince Wheeler** with help from **Robert C. Walls**. . . Christian rock group **Committed** and **Brockwell Farr** were both at **Sound Trax Recording** in Johnson City, TN, working on their respective albums. . . **Jim Brock** recently recorded his new live album in two nights at the Double Door Inn in Charlotte, NC. The 8-track tape was mixed to a 60-minute master at **Reflection Sound Studios** and will be available on CD and cassette. . . **New Grass Revival** was finishing overdubs on their new album at **Sound Emporium** in Nashville. **Wendy Waldman** produced and **Dennis Ritchie** was at the console. . .

STUDIO NEWS

WaveFrame Corp. announced delivery of its AudioFrame digital audio workstation to several facilities, including **Wonderland Studios** in LA, **Sheffield Recordings Ltd.** in Maryland, **Sound Associates** in New York and the **University of California at Santa Barbara**. . . LD Systems Inc. of Houston recently completed installation of a three-room video post-production studio complex for **Moffett Productions**. . . **Digital A.D.R.** in Orlando, FL, made major upgrades to its film post-production and screening room, adding a Neotek Elite 358 mixing console, an NED 9600 Synclavier and an NED 16-track Direct-to-Disk recorder. . . In Hollywood, FL, **POST EDGE®**, a video production and post-production company, has acquired the Florida facilities of Video Tape Associates. . . **Sonic Images**, in Anaheim, CA, opened a new 3,400-square-foot studio complex, equipped with an NED Direct-to-Disk PostPro, a Tascam MS-16 with dbx and an M600 24-input mixing console. . . **Different Fur Recording** in San Francisco recently added an NED 32MB, 32-voice Synclavier 3200 to its MIDIFUR production studio. . . **Acme Audio & Recording** in Chicago took delivery on a PCM-1630-based CD mastering system. . . Sev-

eral West Coast post-production facilities, including **AME** and **EFX** in Burbank and **Intersound** in Hollywood, have added TimeLine's Lynx Keyboard Control Unit. . . **A.D. Productions** recently opened in downtown Milwaukee. The Steve Durr and Associates-designed studio boasts the only Neve V Series console and 32-track digital capability in Wisconsin. . . **Home Base Sound Studios** in NYC redesigned control room A and added a Sony 3036 36-input console with hard disk automation. Also added were new Studer 24-, 4- and 2-track recorders, a Lexicon 480+2, an AMS 15-80 and a 7-foot Steinway grand piano. . . **Total Vision Post Corporation** (TV Post), a new audio and video post-produc-

tion facility, has opened in midtown Manhattan. The facilities feature three multi-format video editing suites, two audio mixing and sweetening suites and a complete sound and music effects library. . . Two Studer A820-24 Multitrack recorders with Dolby SR were installed at **ABC-TV** in New York in January. . . **Body Electric Studios** in Bolingbrook, IL, updated its equipment by adding a Tascam MS-16 recorder with full dbx and a second TEAC 2-track master recorder. . . **Round Sound Recording Studio** in Cresco, PA, recently added an Alesis HR-16 drum computer, MIDlverb II, Nakamichi MR-2 cassette deck, Opcode Timecode-SMPTE/MIDI converter and Roland P-330 digital piano. ■

STATE OF THE ROAD.

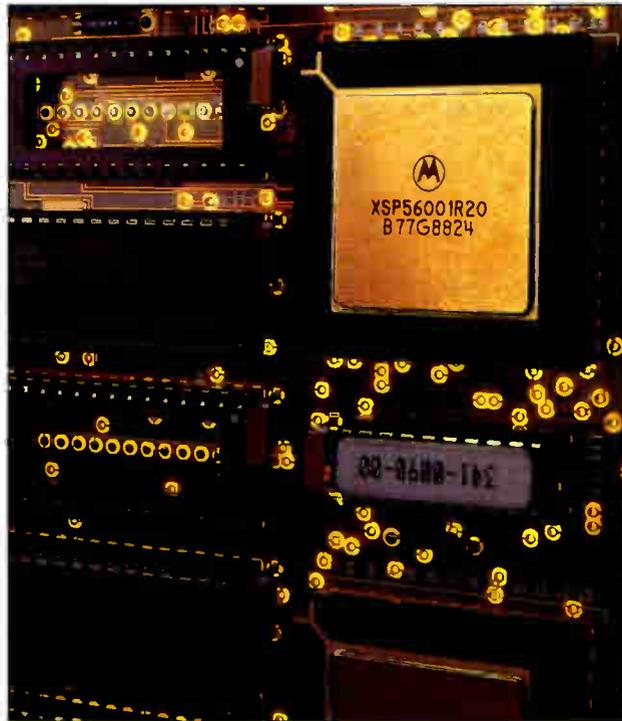
The most powerful ultra-lightweight amplifier in the world. The Carver PM-2.0f delivers 1,200 watts, yet weighs under 11 pounds!

Magnetic Field Amplifier Technology, the choice of touring professionals.

CARVER
PROFESSIONAL



Carver Corporation, P.O. Box 1237, Lynnwood, WA 98046



WHEN ASKED WHY THEY LIKED THE AUDIOFRAME, EXPERTS LISTED ITS 24 BIT AUDIO BUS, CONSTANT RATE SAMPLING, DIGITAL MIXING AND SIGNAL PROCESSING.

We can give you all kinds of technical reasons to buy our new AudioFrame Production System. But if it doesn't deliver excellent sonic quality, will you care? Not likely.

That's why we designed the AudioFrame with not just your productivity, but your ears in mind. Whether you're doing music composition, sound effects design, mixing or general post editing, sound quality is critical. So we packed the AudioFrame with unique features that keep your sound completely in the digital domain. That way, you can keep your ears, and your clients, completely captivated.

Plug into technology with a present and future.

The core of the AudioFrame is our Digital Audio Bus™. This 24 bit, 64 channel bus works in conjunc-

tion with our Constant Rate Sampling technology to provide a true digital environment for your work. Dramatic non-aliased transposition, virtual editing, digital mixing and processing can all be accomplished without sacrificing timbral integrity. Phase coherency is maintained throughout the production process. So listening fatigue is reduced and artistic values are preserved.

Make the connection.

Another one of a kind feature of AudioFrame is its communication capability. Our Universal Digital Interface (UDI) is multi-lingual, speaking most professional digital standards. Plus it gives you the advantage of format and sample rate conversion in real time.

The DSP is a unique module in our system. It's a 24 bit, 16 channel mixer/processor that plugs right into the Bus. The equalizer is capable of 60 dB cuts



OF COURSE, THERE MAY BE A SIMPLER EXPLANATION.

with Qs up to 100. All control moves are fully de-zipped and real time. So you get analog feel with digital power. Plus you get features you'd expect on a full function mixer, coupled with many you wouldn't. Like dynamically automatable control settings and user-definable stored set-ups.

Make a sound investment.

The AudioFrame also gives you creative tools that streamline the production process from beginning to end. You get Texture, our full-featured MIDI sequencer and EventProcessor, our SMPTE/EBU (VITC/LTC) based time code Edit Decision List. Plus we offer the graphic signal editor and powerful sound design tools of SoundProcessor.

Put it all together, and you've got a package that will really set people on their ears. Give us a call and we'll send you the raves AudioFrame has gotten

from those who own one. People like Rob Arbittier, programmer/synthesist for Stevie Wonder, or Grammy award-winning film composer James Horner. When it comes to the best sound, they can really give you an earful.

Complete systems start at \$48,900. Lease packages available.



WaveFrame Corporation



Boulder
303-447-1572

New York
212-719-0100

Los Angeles
818-981-9235



20 gets you 40. 40 inputs plus 8 subs for tracking, overdubbing or mix down means flexibility and control without re-patching at every step. Thanks to the flexibility of the WR-T820B, you can use the monitor section during mixdown to gain 20 extra inputs—over and above the WR-T820B's 20 input modules. So 20 really does get you 40!

The WR-T820B's performance and construction quality are every bit as remarkable as its design. Premium, high-speed IC's in the gain stages give it an open sound that does full justice to all those incoming signals. And our faders are rated at 300,000 operations—20 times the life of a typical carbon fader. Just *two* examples of RAMSA's integrity in design and component selection.

See your RAMSA dealer for a complete demo. Or contact us for further information at: 6550 Katella Ave., Cypress, CA 90630, (714) 373-7278.

RAMSA

Panasonic
Industrial Company

by Ken C. Pohlmann

DAT TECHNOLOGY

Part 5
This month, we'll conclude our discussion of DAT technology with a look at the prerecorded DAT format, touching on the technology behind DAT duplication. In addition, we'll survey the applications of DAT in the professional audio environment, and consider the hardware advances still demanded of DAT to fully meet professional expectations in a variety of applications.

As with any audio source hardware, DAT machines will play back prerecorded digital tape. However, the DAT prerecorded format differs from the recording format. This helps to distinguish between these two applications and limit the ability of consumer users to record their own tapes directly from digital sources. For example, the 44.1kHz sampling frequency is reserved for the prerecorded format.

The prerecorded DAT format provides for normal and wide modes, depending on the method of duplication. In the normal mode, prerecorded DAT cassettes can be duplicated in real time; as with the record/playback modes, metal particle tape is used. In the wide playback mode, tapes can be duplicated at high speed, as described below. However, because the resulting signal level is lower than that from real-time dubbing, the wide mode requires a wider track than other modes to compensate for the decrease in output level. Track pitch is increased from 13.591 microns to 20.4 microns by increasing linear tape speed 1.5 times, from 8.15 mm/sec to 12.225 mm/sec. The 50% difference in track pitch gives a 3.5dB margin in playback output level; however, playing time is reduced to 80 minutes.

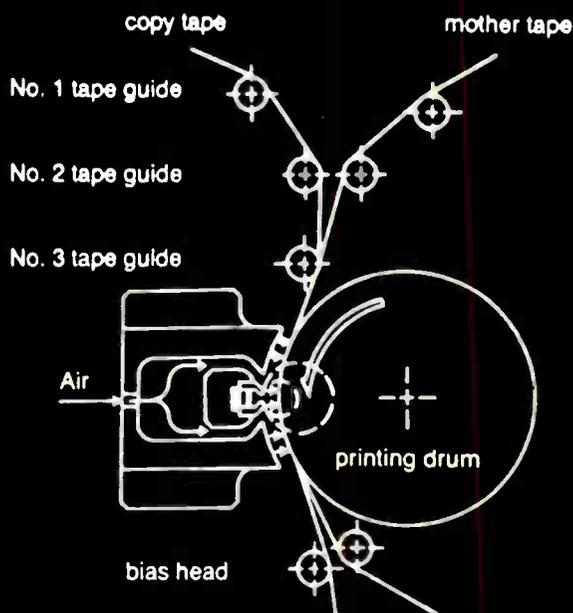
The ATF pattern is modified slightly in the wide track pitch format to main-

tain playback compatibility of the ATF circuit between the normal mode and the wide track pitch mode.

Both real-time and high-speed tape duplication systems have been developed to provide prerecorded DAT cassettes. Both systems produce tapes recorded at a sampling frequency of 44.1 kHz. A real-time system consists of a digital mastering system to produce and play back the master tape, a signal converter to convert the master tape to the DAT format, a real-time duplicator to transfer the signal from the master tape to multiple recording slave decks and a digital tape monitor to monitor the master source during playback. The duration of transfer depends, of course, on the program time.

High-speed replication typically uses magnetic contact duplication

Figure 1



(MCD) methods. A high-speed duplicating system consists of several units. A signal converter is used to convert the PCM master source to the PCM signal of the DAT format, insert subcode into the PCM signal and generate the ATF signal (wide track mode). A mirror mother recorder prints the signal symmetrically on the master tape; its head drum has the opposite gradient of usual DAT recorders. A high-speed contact printer transfers data from the master tape to the final tape. A tape loader winds the duplicated tape into the cassette.

The magnetic contact printing method used to duplicate the final tapes employs ideal anhysteretic magnetizing. A blank tape is fast-forwarded with a master tape, and the magnetic surfaces of the two tapes are put in contact with one another, as shown in Fig. 1. A magnetic bias field, focused at the point of contact, causes the blank tape to assume the magnetic characteristics of the original. A rotating printing drum drives the two tapes, while constant air pressure presses the tapes to the drum.

In magnetic contact printing, the coercivity of the mother tape must be at least three times that of the copy

tape. Because 2,000 oersteds is the practical limit of coercivity, metal copy tapes with a typical coercivity of 1,400 oersteds cannot be used. Thus, a barium-ferrite copy tape with low coercivity (approximately 620 oersteds) and high output in the high-frequency range was specially developed for high-speed DAT duplication. Mother tapes use metal powder oxide with a coercivity of 2,000 oersteds.

The output of the copy tape at a short wavelength of 0.67 microns is 3.5 dB lower than conventional copy tape; the wide pitch mode compensates for this. In addition, playback characteristics of the real-time and high-speed duplicated tapes differ in that the ATF signal of the contact-printed tape is weak because of the signal's low (130 kHz) frequency. Thus the ATF signal on the mother tape must be emphasized. Envelope fluctuation of the output signal is 1.5 dB peak-to-peak, slightly larger than that of conventional copy tape. The track linearity of printed tape is less than 3 microns peak-to-peak. The average block error rate before correction is less than .01 symbol error/second.

In similar high-speed duplicators, a ring head is used to apply the bias magnetic field parallel to the length of the tape. However, in the case of DAT, because of the high bias field required and demagnetization of the mother tape, printed tapes of low output level result. Therefore, the bias magnetic field (of 200 kHz) is applied perpendicularly to the surface of the tape, using a soft magnetic iron for the printing drum. The tape duplicating speed is 4 m/sec, or over 300 times faster than a real-time transfer, so that duplication of an 80-minute tape can be done in 15 seconds.

An alternative high-speed duplicating method uses thermo-magnetic contact duplication (TMD), in which a slave tape is heated to a temperature above its Curie point, recorded, then cooled. Chromium dioxide tape is suitable for this method because of its low Curie temperature of 130 degrees Celsius.

Although DAT was designed primarily as a consumer digital audio recording format, it has applications for the professional recording industry in areas such as portable recording, broadcast, editing and CD mastering. Its high audio performance, data integrity, ease of handling and long playing time make it ideal for these and

YOU SUPPLY THE PROJECT... WE'LL SUPPLY THE NEVE

One of the best and most widely accepted consoles ever manufactured was the Neve 8068 MKII. It set standards in audio consoles that manufacturers are still trying to duplicate. So when we needed a console for our remote audio truck, the choice was fairly easy... we chose a Neve.

If you would like to record your next project on one of the the best tracking consoles ever manufactured, give us a call... we'll even deliver it.

Sheffield
AUDIO-VIDEO
PRODUCTIONS

PHONE
(301) 628-7260

FAX
(301) 628-1977

BRYSTON



*Bryston Model
2B-LP PRO XLR*

BRYSTON POWER AMPLIFIERS CONTINUE TO DEFINE THE STATE-OF-THE-ART IN MUSICAL ACCURACY, LONG TERM RELIABILITY AND PRODUCT INTEGRITY.

BRYSTON design philosophy incorporates three general concepts.

1. Musical accuracy
2. Long term reliability
3. Product integrity

MUSICAL ACCURACY

Musical accuracy is reflected throughout all Bryston power amplifiers and includes the necessity for wide-band transient accuracy, open loop linearity ahead of closed loop specifications, and power supply design as an integral part of the overall sonic and electrical performance of a power amplifier.

We have found that a simple carbon film resistor can contribute more static distortion to a signal than the entire remainder of the amplifiers circuitry combined. We discovered that some parameters of transistors must be controlled as much as 1000 times more closely before their contribution to audible distortion is rendered negligible.

We discovered that under certain actual conditions of speaker loading, amplifiers were incapable of yielding high-power transients without distortion.

Each of the various steps or stages in every Bryston amplifier, from the input section to the output section, without exception, are designed to optimize the musical experience.

STANDARDS OF RELIABILITY

WE consider this criterion to be exceedingly important. We have applied techniques and materials in our everyday construction of electronic equipment more typically utilized in the military and aerospace industries.

All components used in Bryston power amplifiers are specified for continuous duty at maximum power, with typical safety margins of 250%.

The power transistors used in all Bryston amplifiers are 100% tested for safe operating area, both before and after installation in the circuit. They are then taken to a "burn-in" table when they are given a capacitor load, a square-wave input signal, and set at slightly under clipping for a period of 100 hours. During this time, the input signal is cycled three hours on to one hour off, to exert additional thermal stress.

Following the burn-in period, the amplifiers are monitored for DC bias stability for approximately another full day. At this point, they are returned to the test bench for another complete checkout of all operating parameters and functions, at which time a test sheet is made, and included in the packing with the unit.

As may be seen, Bryston takes very seriously the correct functioning and long term reliability of its products.

INTEGRITY

BRYSTON contends that the term 'best' should apply to the honesty, pride and courage with which we conduct our business, as well as to the performance of our products.

For this reason, you will not find Bryston's products being cosmetically "updated" on a regular basis merely in order to keep the customer's interest in something 'new'. If we make a change in the circuitry, it will be because, and only because, it yields a worthwhile performance or reliability improvement.

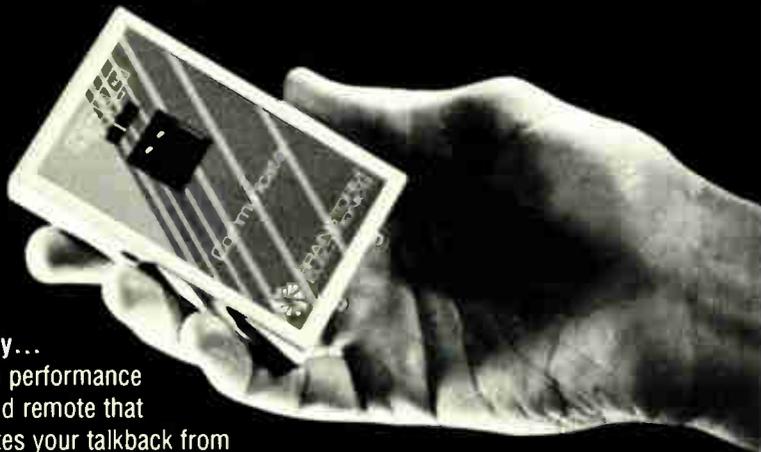
In Canada:

Bryston MARKETING LTD
57 Westmore Dr., Rexdale, Ontario,
Canada M9V 3Y6
(416) 746-0300

In the United States:

Bryston VERMONT
RFD #4, Berlin,
Monpelier, Vermont 05602
(800) 451-4160

"Please pass the Talkback"



Finally...

A high performance infrared remote that activates your talkback from *anywhere* in the control room.

- No aiming necessary
- Easy installation
- Very affordable

Call for more information.



**BRAINSTORM
ELECTRONICS, INC.**
(213) 475-7570
1515 Manning Ave. #4
Los Angeles, CA 90024

TB-4 Communicator

Circle #007 on Reader Service Card

other tasks, but only if certain professional requirements are met.

To promote widespread use and take advantage of cost reductions, professional DAT recorders must retain compatibility with the consumer format. In this way, professional recorders can play back tapes made on consumer recorders, and professional tapes can be played back on consumer decks. To ensure compatibility, all tape formats and ATF must be identical, as defined in consumer DAT specifications. Similarly, professional DAT recorders must adhere to other DAT parameters, such as 16-bit word length, to ensure compatibility. Professional subcode must be defined within the context of consumer subcode; however, professional DAT recorders may implement subcode features reserved but unspecified for consumer decks. In this way, professional features such as ability to record at a 44.1kHz sampling frequency and time code on an auxiliary track may be added without violating the DAT specification.

Many professional digital audio recorders are interconnected via the AES/EBU serial transmission interface, in which digital audio data is conveyed along with information such as auxiliary bits, channel status and user data. Thus, it is necessary to transfer data between DAT and the AES/EBU interface. The data capacity required to store all the data in the AES/EBU interface is considerable; for example, total capacity for 2-channel auxiliary data (user data and channel status) is 192 kilobits/second without compression, blocking structure or error correction. By consolidating left- and right-channel auxiliary data, discarding some channel status information and using an internal blocking structure related to DAT track structure (and independent of the AES/EBU interface), pertinent interface information can be economically recorded on DAT.

Time code recording to a medium is essential in professional applications; to ensure compatibility, SMPTE time code is required. Although time code may be recorded on a longitudinal track, which is defined but reserved in consumer DATs, low tape speed limits its reliable retrieval.

SMPTE time code can also be recorded in the subcode area, within subcode parameters, meaning it can

So Discrete



New audio processing modules from API, featuring the famous all-discrete 2520 op-amp.

- 550 B** A four-band version of the classic 550A equalizer, with the same circuit design, components, and great sound.
- 560B** 10-band graphic equalizer.
- 512B** Microphone preamp and direct box, with the same package format and pin-out as the API equalizers.
- 3124** 4-channel microphone preamp and direct box, with optional mixer section.

Also new 2, 4 and 10-position powered racks to hold any combination of 500-series modules.

AKG, AMS, Aphex, API, Bryston, Calrec, Soundcraft, T.C. Electronic, Valley International, Westlake, White Instruments, and other exceptional audio products.

studio consultants, inc.

321 West 44th Street, New York, NY 10036 (212) 586-7376

Equipment, support, and design services for professional audio facilities and broadcasters.

Circle #008 on Reader Service Card

APPRECIABILITY

GML CLIENTS SPEAK FOR THEMSELVES

RESPONSIVE

"It just works. The system is virtually transparent to the user. No complicated displays... No time consuming keystrokes."

TOM McCORMACK, THE BURBANK STUDIOS, CA

DEPENDABLE

"Reliability is a major concern in day to day operation. The GML system has been nearly flawless."

TETSU TAKAHASHI, SEDIC STUDIOS, TOKYO

PRECISION

"Fader and Mute accuracy so precise, my confidence in the system to reproduce every detail is unquestioned."

BRUCE SWEDIEN, MIXER, CA

COMPATIBILITY

"GML's ability to convert SSL and Necam mix disks allows us to maintain compatibility, assuring room to room flexibility for our clients."

STEVEN BRAMBERG, ATLANTIC STUDIOS, NYC

ENGINEER ENGINEERED

"For the mixer, the operation is effortless and intuitive. When complex problems do need to be addressed, the Editor provides an easy to use off-line function for any eventualty."

MICK GUZAUSKI, MIXER, CA

PALETTE-ABILITY

"It provokes an environment that enhances the creative process..."

CHICK COREA, ARTIST, PRODUCER, CA

ORTHOGENETIC

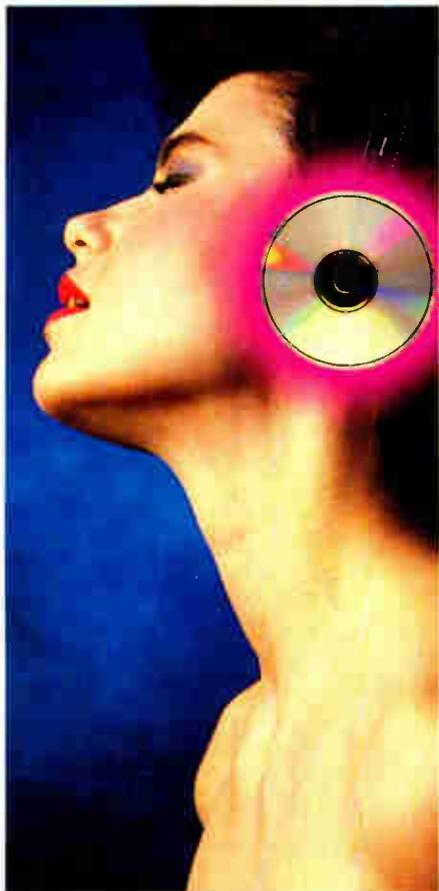
"GML's system architecture assures that our investment will remain on the cutting edge of technology for years to come."

STEPHEN FLOOD, MASTERROCK STUDIOS, LONDON



THE AUTOMATION STANDARD

7821 BURNET AVENUE, VAN NUYS, CALIFORNIA 91405, FAX 818-781-3828, TELEPHONE 818-781-1022



INSIDER · AUDIO

be read forward and backward over a wide speed range. However, this is not a trivial exercise, since the frame rate used by DAT (33.3 frames/second) has no integral relationship to SMPTE time code frame rates (24, 25, 29.97 and 30 frames/second). Thus, subcode is not inherently receptive to SMPTE time code.

The problem of DAT time code is receiving top priority by several engineering teams, and several technical solutions have been devised. For example, Fostex has proposed a method to record time code in unused subcode addresses, recording the 80-bits/frame directly as digital data. Timing and clocking needs are covered by recording a frame of time code for each DAT frame. Since any SMPTE frame is longer than a DAT frame, there is redundant information, which is simply discarded. The result is a fully synchronized DAT. The very high-

Editing with DAT is constrained by the limitations inherent in any videotape recording format, with DAT's own added challenges. Insert audio recording can occur only in the context of the track block structure. Synchronization is required prior to the edit point, necessitating a preroll. Alternatively, a read-modify-write function utilizing four heads can be used, allowing writing and crossfading. However, it is necessary to provide crossfading at the end of an insert edit, because the last overwritten track will result in a half-width track of previously written data. The use of the wide prerecorded mode can help remedy this.

It is ironic that this consumer format has met little success in the consumer market. Although many cite political reasons, poor sales in countries untroubled by such controversy suggest other reasons. Still, DAT is an undeniably excellent recording system. Like the CD, it provides high fidelity,

It is ironic that this consumer format has met little success in the consumer market.

speed search capability of DAT decks may overtax existing control and chase systems; hence, careful design is required.

Of course, with time code—in addition to other synchronization tasks—an inexpensive digital multitrack with track slipping becomes quite feasible. On the other hand, until manufacturers agree on a standard method of recording time code to DAT, purchasers should be wary. Many users are recording a tone at the head of the tape and jam-synching with frame-accuracy for 20 minutes or more.

To expand DAT's professional capabilities further, a read-after-write feature is required for confidence monitoring, as well as a read-modify-write function for electronic editing. These requirements have been answered by manufacturers with four-head drums. It is also necessary to specify a remote control format for bus control.

long playing time and conveniences such as programmability and indexing. Even if the consumer remains unimpressed, at least audio professionals have recognized DAT's advantages. Perhaps with that foothold, DAT will yet become an important force in the recorder market.

As a final reminder, DAT and digital audio enthusiasts in general are invited to attend the AES International Conference on Digital Audio, to be held in Toronto, May 14-17. I hope to see you there.

This material is adapted from the second edition of Pohlmann's *Principles of Digital Audio*, available from Mix Bookshelf. ■

Ken C. Pohlmann will chair the AES Conference on Digital Audio in Toronto, May 14-17. Any Insider readers not attending will be systematically hunted down and frowned upon.

Ambience
Series 3000

- 12 New Compact Discs!
- Long Ambience Sounds!
- All Digitally Recorded!
- Own for the incredible sounds... Buy for the incredible value!

(416) 886-5000
U.S. 1-(800) 387-3030
105 West Beaver Creek Road,
Suite # 4,
Richmond Hill, Ontario,
Canada L4B 1C6.



**THE WORLD'S
MOST INCREDIBLE SOUND
EFFECTS LIBRARY.**

Circle #009 on Reader Service Card

Why the world's top studios overwhelmingly choose Mitsubishi digital

Of the top studios in Los Angeles, Nashville, New York and London, the overwhelming choice for digital is Mitsubishi. Why? Because the vast majority of top producers insist on Mitsubishi for their digital work. And why is that? Because Mitsubishi sounds best.

Mitsubishi machines make digital recording profitable for the studio owner. They attract more and better clientele—and command higher rates. Plus they're more productive and more reliable in professional recording applications.

New X-880 32-channel digital

Mitsubishi's new X-880 is smaller and lighter thanks to LSI technology. It uses less power and runs quieter. It's our *third* generation multi-track (we've been at this longer than anyone). And it's fully compatible with X-850 recorders, so you'll be compatible with most other top studios.

All the features of its predecessors are here and more, including improved design auto-locator and a sample accurate chase synchronizer option for 64-track lockup.

Call for a brochure or demonstration in your studio.



MITSUBISHI PRO AUDIO GROUP

DIGITAL ENTERTAINMENT CORPORATION
225 Parkside Drive, San Fernando, CA 91340, Phone (818) 898-2341
New York: Phone (212) 713-1600 • Tennessee: Phone (615) 371-6602 •
Canada: Phone (416) 365-3363 • United Kingdom: Phone 0727-40584



by Stephen St. Croix

MOTORCYCLE MEDIA

HDTV! Finally! Harley-Davidson Television. All Harley-Davidson Television! Twenty-four hours a day. Clearly the intelligent choice for those of us who don't want to watch the all-sports or all-news or all-weather channels. It's about time!

Not only that, but it will have twice the number of scan lines, with the screen aspect ratio of a movie theater, and an overall res increase of about five times! And, of course, it will come to us from the land where Harleys themselves are most revered and coveted: Japan.

Where the hell have *we* been? Asleep at the handlebars, apparently.

For three years I have been very vocal concerning the fact that America has lost all ability to compete in

the Europeans, yet once again Japan is the first place to see it.

PART 1: THE EYES HAVE IT

For those few of you who may not have personally *seen* high-definition television yet, it is like looking through a very clean window at reality. In fact, some of the programming on HDTV this year was so real and so punchy that the reality I saw later was drab and flat by comparison! Children of the '60s, take note: hyper-reality is upon us once again, and this time it may be legal!

The United States of America is contributing to this technological advancement by wrapping the whole process in so much legislation that it stands a good chance of smothering



the technical arena. I touched on it two months ago in this column, and I do it again now.

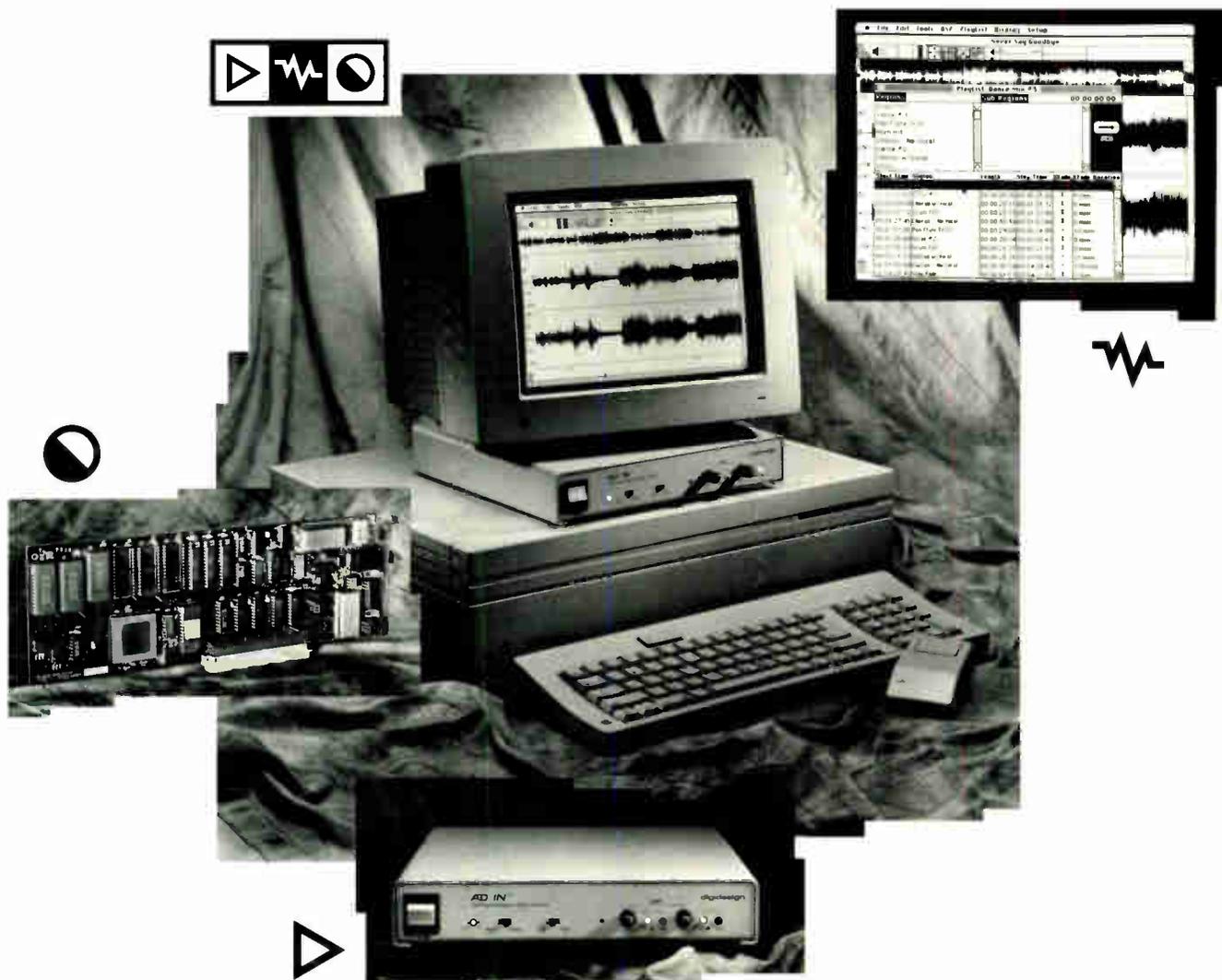
Let's have a look at that Harley-Davidson Television, for instance. We of the Fewest Scan Lines (NTSC) see the need for improvement more than

to death. Actually, it is a pretty clever approach: when a new problem arrives, simply tie it up and hold it down until it dies. Then you never have to deal with it. After all, this method seems to be working pretty well with DAT.

ILLUSTRATION: TIM GLEASON

Sound Tools

Affordable Digital Recording *and* Editing



If you've heard the clarity of sound produced by a compact disc, you can appreciate the exceptional quality of 16-bit digital audio. Imagine producing your own music with this fidelity and unequalled editing flexibility. At an unprecedented price. Introducing Sound Tools.[™]

Sound Tools is a complete digital recording and editing system based on the Macintosh[®] II or SE personal computer. Featuring the Sound Accelerator[™] Digital Signal Processing Card, the AD IN[™] Analog to Digital Converter and Sound Designer II[™] Audio Editing Software, Sound Tools gives you high quality stereo hard disk recording *and* sophisticated, yet easy to use editing power.

Sound Tools can solve virtually any audio production problems you encounter. Use Playlist editing to create multiple edited arrangements—30 second radio spot; 3 minute single; 10 minute dance mix—without altering your original recording. Got a dull sounding 33 second commercial? Use

Sound Tools' Parametric EQ and Time Compression to transform it into a brilliant 30 second spot. Need to sync it all up to tape? Sound Tools provides full SMPTE synchronization via MIDI Time Code. For owners of digital samplers, there's stereo waveform editing and universal sample transfer.

With these features, compare Sound Tools to *any* audio editing system. You'll find one difference.

Price.

Visit your Digidesign dealer today for a personal demonstration and call 800-333-2137 for a free catalog.

digidesign Circle #142 on Reader Service Card

1360 Willow Road Suite 101

Menlo Park, CA 94025

415.327.8811

Macintosh is a registered trademark of Apple Computer, Inc.



Burlington

Audio / Video Tapes, Inc.
106 Mott St. Oceanside, N.Y. 11572

Toll Free 1-800-331-3191
In N.Y. 516 678-4414
FAX 516 678-8959

3M Video & Audio Tape



Call for Free Catalog

Shipped from Stock - Priced Right
Immediate Delivery

Reels • Boxes • Custom Cassettes
Leaders • Splicing Tapes

**HARD TO GET
ACCESSORY ITEMS**

Circle #058 on Reader Service Card

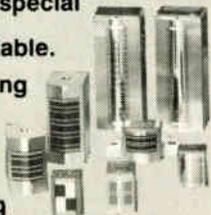
OPTIMIZE — don't compromise:

If you demand optimum
performance from your tape
recording equipment . . .

JRF maintains a complete lab facility insuring precision relapping and optical alignment of all magnetic recording heads and assemblies. Worn unserviceable heads can be restored to original performance specifications.

**24-hour and special
weekend
service available.**

- Broadcasting
- Mastering
- Recording Studios
- Tape Duplicating



New and reconditioned
replacement heads from mono
to 24-track . . . Many in stock.

**For repair or replacement,
we're at your service!**



249 Kennedy Road
P.O. Box 121
Greendell, NJ 07839

Tel.: (201) 579-5773 • Telex: 325-449

Fax: (201) 579-6021



Circle #059 on Reader Service Card

THE FAST LANE

Legal fights over format and possible transmission standards are raging because we do not want to allocate the increased bandwidth needed for HDTV on the open airwaves. The biggest fight of all may well become cable companies versus telephone companies (along with a third, presently weak, potential delivery system: direct broadcast satellite) for distribution rights.

New discoveries in peak-resonance wave propagation methods show that fiber optic transmission lines can be made over 100 times more efficient (that means the same power that got you 250 miles before can now get you 2,500 miles, without the need for expensive, slow and bulky repeaters). Proper implementation of these techniques would probably tilt any decision in favor of the telephone companies, which are already licensed to proceed with changing over to multi-channel, fiber optic transmission lines.

This country's inability to catch up in the HDTV race because of too many years on vacation is another consideration that cannot be ignored. Twenty years ago, almost 20 American TV manufacturers were in the game. Today there are 0.6. (Zenith manufactures a large percentage of its current product in Mexico, and its television division is not too strong.)

Several U.S. companies are actually considering the development of a partial, temporary, pretend-HDTV that subjectively appears to be better than what we have now. While marginally improved, it comes nowhere close to the real thing. Just what we need: a new standard that is not only bogus, but *intended* to turn obsolete within a couple years.

Just so you don't feel too bad about the American government's involvement, you might like to know that the Japanese government is also involved in HDTV. They held conferences with the private manufacturing companies

to develop standards, and just to show us how it's really done, they've already put more than 100 million dollars directly into HDTV research.

The Japanese government's official response to an American interviewer's recent question about the U.S. being so far behind was, "That's their problem, isn't it?"

They did not mean it offensively, they simply meant it literally. They are right. We cannot grow or even compete by whimpering and generating an endless stream of protectionist laws. We must bring ourselves to actually *produce*, or we'll atrophy to nothing.

In defense of the actual thinkers, a few elected officials are discussing the concept of government organizing *and* subsidizing real HDTV research and development.

Let's see, where have we seen that idea work before?

There is a remote possibility we can save face (this is a family magazine, after all) in a way some economists and technologists feel could be beneficial.

While the Japanese currently hold around 65% of the consumer electronics market, the USA holds an amazing 70% of the world's

personal computer market! Is this the last gasp of a once-great technological leader, or is this America's foot in the door to the future?

With America's still-unique skills in rapid development of specialized computer chips, some feel we may be able to literally ignore HDTV and skip right to the next step: truly interactive, high-resolution computer systems. The systems of the future will be so sophisticated that they do all the neat computer stuff we love now, and play movies for us with picture and sound quality that exceeds HDTV.

The plan is to offer so much more that the line between personal computers and broadcast video entertainment disappears and it all becomes the same machine. It would be a personal supercomputer, linked to data sources with high-speed, fiber optic, bidirectional (interactive) networks.



All this for below \$60 grand?

You asked for it, here it is!

So you need 24 buss, 8 aux sends, in-line monitoring, parametric EQ with sweepable high-pass filter, high resolution bargraph meters, master logic switching, programmable mute system, programmable stereo-in-place solo system, 576 point patchbay including studio/mic lines, dual inputs per module, dual stereo cue systems, extensive communications, sixty-four mix inputs, digital quality, automation ready, and much more?

Well, here it is...**NOT** priced at several hundred thousand dollars and we **STILL** dare you to compare specs. As for the sound, it's typically D&R...Beyond Comparison.



THE 8000 SERIES III IN-LINE SYSTEM

D&R Electronica b. v.
Rijnkade 15B
1382 GS Weesp
Phone 31 2940 18014



D&R USA
Route 3, Box 184-A
Montgomery, TX 77356
Phone (409) 588-3411

MIDIBOOST™

A Significant Boost for MIDI

WANT TO RUN MIDI CABLES
MORE THAN 50'?

WANT TO TRANSMIT MIDI OVER
EXISTING AUDIO CABLES?

MIDIBOOST™ increases the power of MIDI signals and makes them immune to electrical noise so they can be transmitted up to 4,000 feet without loss of data integrity. In addition,

MIDIBOOST™ allows MIDI signals to be transmitted using

XLR-type connectors and standard audio cables.

SLP \$199.00 per pair

MIDIBOOST™ circuits are available for OEM and built-in studio applications.

Midia

MIDIBOOST™

International Music Co., 1316 E. Lancaster, Ft. Worth, TX 76102; Tel: (817) 336 5114 Fax: (817) 870 1271
Distributed in Canada by TMI, PO Box 279, Port Coquitlam, British Columbia V3C 3V7; (604) 464 1341

Patent pending MIDIA™ and MIDIBOOST™ are trademarks of Marquis Music. © 1988 Marquis Music.

THE FAST LANE

Some fun now.

That would mean the U.S. could excel by bypassing this current problem, rather than attempting to compete with the Rising Sun. It is always better to succeed by radical advancement than by competition, but it is much, much more risky. In light of the fact that it is our only chance, slim though it may be, it might be the way to go, if we really can. It is a bit too soon to say, even for a careless guy like me.

PART 2: THE EARS DON'T

Remember when the entire recording industry collapsed because open-reel tape recorders became available to consumers, and every record album ever sold was copied by everyone and given to all their friends? For example, do you remember how sad we all were when the Beatles came on TV and announced bankruptcy due to lost profits as a result of home album copying, after only two albums had been released? What a sad day that was for all of us.

And how about that time eight years later when the same thing happened all over again because audio cassettes came out?

Well, I sure feel secure knowing this can never happen again, thanks to the helping hand of Uncle Sam.

Our very constitutions (and our very Constitution) have been tested with the invention of DAT! We spent a couple of years deciding whether to pop a cute little analog notch (with several hundred degrees of phase shift around it) in the middle of the audio spectrum to stop DAT copies of CDs.

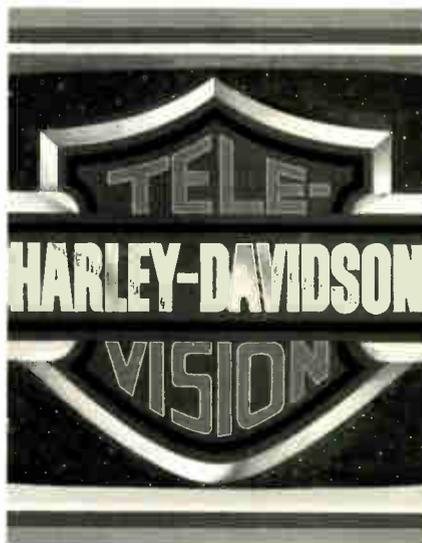
Completely undefeatable (unless you have ever taken Soldering 101); this notch idea worked great. It saved the recording industry, endeared CBS to the public and kept DAT machines from landing on our shores for a year.

A year is too long. A significant portion of the consumer market is confused by what appears to be a soft, sloppy introduction of a product that at first promised to be hotter than analog cassettes. The Japanese manufacturers got tired of our fooling around and stalling, and in turn cooled their market. As a result, it is now completely possible DAT could wither and die on the vine.

But that is okay, we saved the recording industry! Again.

Well, folks, what do you suppose the Japanese have been up to while they're waiting for our decision on whether or not America wants DAT? Watching John Wayne war movies? Or maybe working on erasable CDs for 1992? No doubt they are doing both, but...

Did you know they already have *recordable* CDs? They are currently in production in small quantities and play on standard CD players. Dual CD player recorders are being designed



now (you know, just like those dual-cassette players used today to mass-bootleg tapes), and since the technology needed for the hardware is close to the existing play-only designs, prices are expected to be alarmingly low.

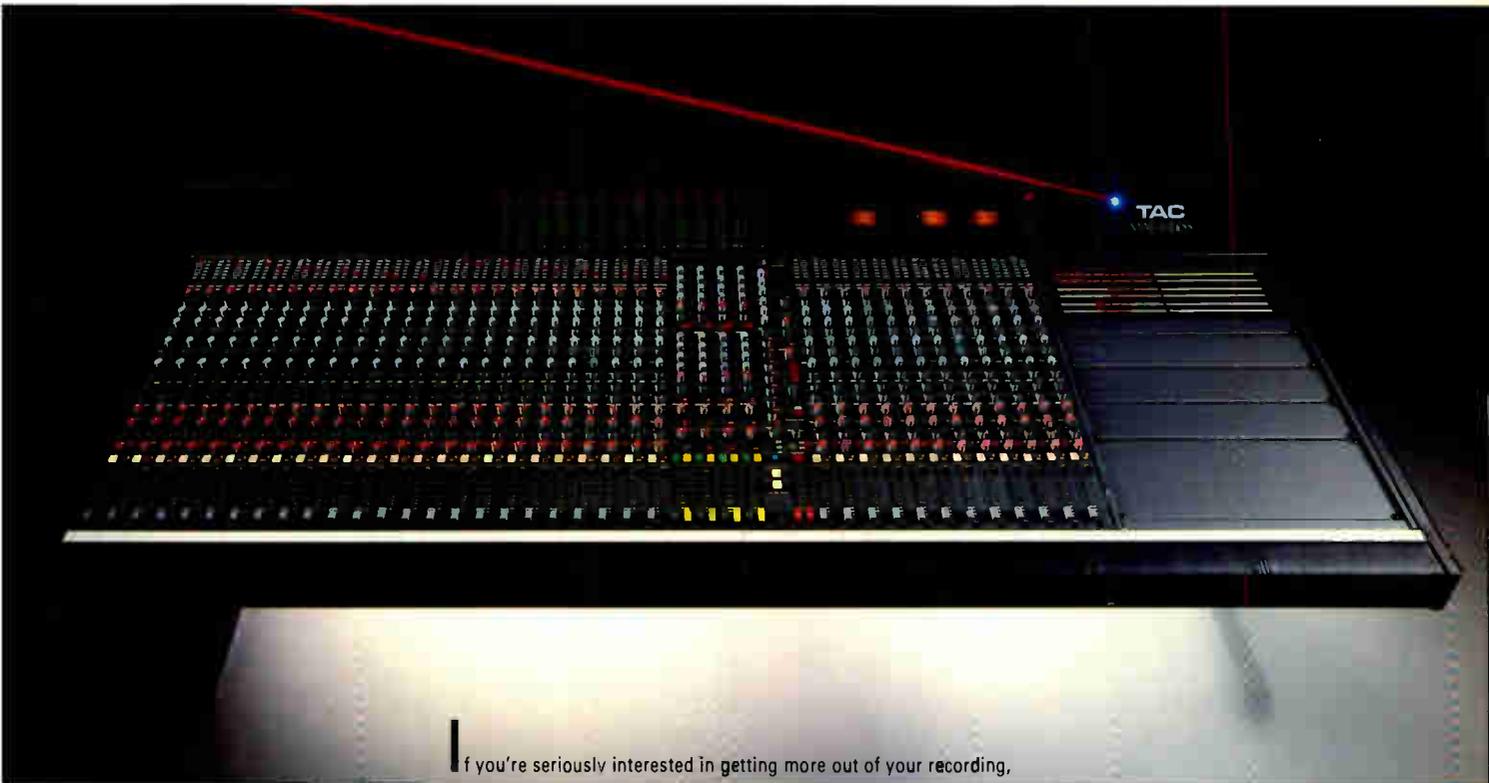
This stuff should be on Japanese streets by the time you read this. I wonder what the United States government will do about *this*?

The associations that exist to assure profit-making from cables, phone lines, records, musicians, copyrights and everything else you can imagine all push the government for protection, which happens every time some new techno-advancement appears that can even remotely be construed as threatening to the livelihood of any of these special interest groups.

Is CD-R another puff of paranoid smoke, or is it so good that it might actually be the one? If you don't help to decide, the other guy will. ■

And now for something completely different: If you drive at 55 mph in the left lane on superhighways, or change lanes without signaling, don't read my column. I don't want to write for you. And if I catch you...?

MATCHLESS? STILL MATCHLESS!



Mon and stereo Inputs: 24 Busses:
8 Aux Send Busses: In-Line Monitoring:
8 Subgroups: 8 FX Returns:
LED metering: TT jackfield:
26 and 36-input frames:

If you're seriously interested in getting more out of your recording, production or broadcast facility, buy a TAC MATCHLESS. It has competitors. So do you, and you know what your opinion of them is.

It's time to maximise your potential.

MATCHLESS will help you to get more out of your other equipment.

MATCHLESS wears a ridiculously reasonable price tag and will help you get a return on your investment more quickly.

MATCHLESS is a pleasure to use and sounds utterly splendid.

MATCHLESS is a beautiful console which will impress your clients.

After they have gone, you will steal a last loving glance before you close the door.

MATCHLESS can now be fitted with a variety of automation packages.

We like the MATCHLESS so much, we've made over 400 of them so far. We haven't been able to keep any of them back for ourselves.

Distributed worldwide through the AMEK/TAC dealer network, your MATCHLESS merely awaits your order.



TOTAL AUDIO CONCEPTS LTD

Head Office, Factory and Sales: AMEK Systems and Controls Limited, New Islington Mill, Regent Trading Estate, Oldfield Road, Salford M5 4SX England.
Telephone: 061-834 6747. Telex: 668127. Fax: 061-834 0593

AMEK/TAC US Operations: 10815 Burbank Blvd, North Hollywood, CA 91601 Telephone: 818/508 9788. Telex: 662526 AMEK USA. Fax: 818/508 8619

With nine work stations of we'd like to introduce



Forgive us if we sound a little pompous. It's just we find ourselves in a curious position. Over the past several years, everyone and their brother has introduced a so-called "work station." When, to our way of thinking, they really aren't work stations at all.

To us, a work station should have the most sophisticated sequencer available. And in fact, our new W-30 does. It features 16 tracks, microscope editing, full compatibility with both Roland MicroComposers and Directors "S" Sequencing software, to say nothing of the friendliest user interface there is.

To us, a work station should also be designed around a sampler rather than a synthesizer. What this does, more than anything else, is make the system remarkably versatile. It's a whole lot easier to make a sampler sound like a synthesizer than the reverse. And speaking of sounds, those from the W-30

can be processed through either eight polyphonic outputs or a mix output.

To us, a work station should possess an excellent memory. Which is why we've equipped the W-30 with a one mega-



Because the W-30 uses the same disks as the S-50 and S-550, you won't need to build a sound library. It already exists.

n the market, the first.

Nor does its versatility end here, because the Roland W-30 not only puts



If you squint you can probably make out the fact that the new Roland W-30 has eight polyphonic individual outputs which allow any sound to be routed individually to a mixer.

a 3.5" floppy disk drive at your disposal, it also gives you the ability to access additional data by using either a CD-ROM or a hard disk connected to an optional SCSI interface.

Of course, a work station should be able to express itself too. Which is why we've made our 61-note keyboard sensitive to both velocity and after-touch.

And it should be easy to use. Hence, the W-30 uses a large, state-of-the-art 240 x 60 dot LCD display that's capable of providing more useful information at one time than ever before.

But before we go, let us take this moment to pose a hypothetical question.

Let's just say that all of the other so-called work stations found a way to include these very same features. They'd be better, of course, but still not comparable to the remarkable new W-30.

Because they'd still be missing the most persuasive and motivating feature of all.

The Roland logo.

Roland®

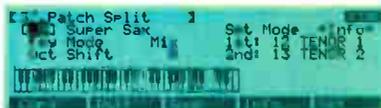
Roland Corp US, 7200 Dominion Circle, Los Angeles, CA 90040-3647
213 685-5141



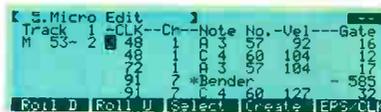
byte, user-accessible memory (ROM).

And because it comes with the most frequently-used sounds, you won't need to load in a sound disk to begin working.

The sampler section's 512k (RAM) memory is no less impressive. It's actually equal to that of a Roland S-330, and can be used for creating new sounds, or for playback, or for manipulating any of the S-Series disks. As a result, you'll not only be in a position to work with the sounds that are currently hot, you'll be in just as good a position to capture the sounds that will become hot.



Our state-of-the-art 240x60 dot LCD display lets you view all the parameters while editing.



While sequencing you can change the length or dynamic value of any note simply by using microscope editing.

Circle #107 on Reader Service Card

Headquarters • 212-765-3410
West Coast • 818-785-2211

Circle #017 on Reader Service Card

Badstrasse 14 -
Heilbronn/Necker, West Germany

TANNOY®



Perreaux® OF NEW ZEALAND

KIMBER KABLE™

Redefining New York's Ears.

Over the last two years New York area recording studios have been moving steadily toward a "new standard". Tannoy loudspeakers, whether the PBM 6.5 mini-nearfield, LGM 12" bookshelf or the large format dual 15" FSM pictured at right, have become the choice of "golden-eared" independents such as Bob Rosa and

Frank Filipetti as well as a vast number of studios, production houses and broadcasters. Increasingly, the power behind any of these Tannoys, regardless of size, has become the Perreaux high resolution mosfet amplifier. Its high slew rate, rise time, peak current and voltage swing capabilities along with a phase accuracy to

within one degree make Perreaux the obvious partner for the equally transparent Tannoys. In order to fully realize the potential of this combination critical listeners are turning to silver and teflon composite Kimber Kable at both the input/interconnect and output/speaker ends of the audio chain. The resultant clarity, defi-

nition and preservation of spatial information has established the Tannoy/Perreaux/Kimber Kable system as the professional reference. For those seeking to push their capabilities to the limit, we also custom build 24" copolymer cone Hartley subwoofer systems extending low frequency response to 16 Hertz..... a true 16 Hertz.

In addition to installing the finest monitor systems we also specialize in packaging the most advanced outboard gear into effects racks for all applications. Of particular interest is the new computer-driven QUANTEC XL now with powerful and user-friendly Mac software (IBM & Atari are standard), the

legendary MARSHALL 5402 Time Modulator analog delay and AR-300 Tape Eliminator, the EVENTIDE H3000 Ultra-harmonizer and SP 2016 Multi-fx reverb/sampler, the AKG ADR-68K reverb/sampler, the T.C. ELECTRONICS 2290 delay/sampler and 1210 Spatial Expander / Chorus / Flanger, the

KLARK TEKNIK DN 780 reverb, the unique DREW Y-Expressor envelope modifier and Genesis DSP, and introducing the remarkable new NEVE PRISM SERIES rack featuring "V Series" EQ & mic pre/dynamics modules.

FOR FURTHER INFORMATION, OR
TO ARRANGE FOR A DEMONSTRATION
PLEASE CONTACT:

RICHARD ROSE
(914) 691-6077
11AM — 6PM
FAX: (914) 691-6822



R.D. 1 BOX 362A
HIGHLAND, NEW YORK 12528

THE SAND BOX

UNIQUE RECORDING

SKYLINE STUDIOS

CHUNG KING RECORDING

SHAKEDOWN SOUND

MILLBROOK SOUND STUDIOS

GNOME PRODUCTIONS

N.Y. MUSIC DELI

NEVE N.Y.

n the market, the first.

Nor does its versatility end here, because the Roland W-30 not only puts



If you squint you can probably make out the fact that the new Roland W-30 has eight polyphonic individual outputs which allow any sound to be routed individually to a mixer.

a 3.5" floppy disk drive at your disposal, it also gives you the ability to access additional data by using either a CD-ROM or a hard disk connected to an optional SCSI interface.

Of course, a work station should be able to express itself too. Which is why we've made our 61-note keyboard sensitive to both velocity and after-touch.

And it should be easy to use. Hence, the W-30 uses a large, state-of-the-art 240x60 dot LCD display that's capable of providing more useful information at one time than ever before.

But before we go, let us take this moment to pose a hypothetical question.

Let's just say that all of the other so-called work stations found a way to include these very same features. They'd be better, of course, but still not comparable to the remarkable new W-30.

Because they'd still be missing the most persuasive and motivating feature of all.

The Roland logo.

Roland®

RolandCorp US, 7200 Dominion Circle, Los Angeles, CA 90040-3647
213 685-5141



byte, user-accessible memory (ROM).

And because it comes with the most frequently-used sounds, you won't need to load in a sound disk to begin working.

The sampler section's 512k (RAM) memory is no less impressive. It's actually equal to that of a Roland S-330, and can be used for creating new sounds, or for playback, or for manipulating any of the S-Series disks. As a result, you'll not only be in a position to work with the sounds that are currently hot, you'll be in just as good a position to capture the sounds that will become hot.



Our state-of-the-art 240x60 dot LCD display lets you view all the parameters while editing.



While sequencing you can change the length or dynamic value of any note simply by using microscope editing.

by Mel Lambert

MAKING THE DIGITAL CONNECTION

It often amazes me how far forward we progress despite not coming to grips with some fundamental issues that affect our industry. One topic that bewilders me is the current standard—or the lack of one—for connecting certain species of digital hardware.

And, lest the fickle finger point errantly in my direction, let me say I respect the outstanding work of such organizations as the Audio Engineering Society, European Broadcasting Union, International Electrotechnical Commission, Society of Motion Picture and Television Engineers, Electron-

“Few manufacturers seem willing to acknowledge that pro audio hardware derived from consumer-style systems must not be seen as capable of performing digital copying.”



PHOTO: DON CARROLL

Sheer Opulence of Sound



TLM 170

The studio microphone which achieves that elusive perfection. There is no comparison. Each one handcrafted by NEUMANN—the world leader in microphone technology for over half a century.

Gotham Audio Corporation
1790 Broadway
New York, NY 10019-1412
Headquarters • 212-765-3410
West Coast • 818-785-2211

GOTHAM

Circle #017 on Reader Service Card
World Radio History

Gotham Canada
416-665-2542
Audio Export/Georg Neumann & Co.
Badstrasse 14
Heilbronn/Necker, West Germany

TANNOY®



Perreaux® OF NEW ZEALAND

KIMBER KABLE™

Redefining New York's Ears.

Over the last two years New York area recording studios have been moving steadily toward a "new standard". Tannoy loudspeakers, whether the PBM 6.5 mini-nearfield, LGM 12" bookshelf or the large format dual 15" FSM pictured at right, have become the choice of "golden-eared" independents such as Bob Rosa and

Frank Filipetti as well as a vast number of studios, production houses and broadcasters. Increasingly, the power behind any of these Tannoys, regardless of size, has become the Perreaux high resolution mosfet amplifier. Its high slew rate, rise time, peak current and voltage swing capabilities along with a phase accuracy to

within one degree make Perreaux the obvious partner for the equally transparent Tannoys. In order to fully realize the potential of this combination critical listeners are turning to silver and teflon composite Kimber Kable at both the input/interconnect and output/speaker ends of the audio chain. The resultant clarity, defi-

inition and preservation of spatial information has established the Tannoy/Perreaux/Kimber Kable system as the professional reference. For those seeking to push their capabilities to the limit, we also custom build 24" copolymer cone Hartley subwoofer systems extending low frequency response to 16 Hertz..... a true 16 Hertz.

In addition to installing the finest monitor systems we also specialize in packaging the most advanced outboard gear into effects racks for all applications. Of particular interest is the new computer-driven **QUANTEC XL** now with powerful and user-friendly Mac software (IBM & Atari are standard), the

legendary **MARSHALL 5402** Time Modulator analog delay and **AR-300** Tape Eliminator, the **EVENTIDE H3000** Ultra-harmonizer and **SP 2016** Multi-fx reverb/sampler, the **AKG ADR-68K** reverb/sampler, the **T.C. ELECTRONICS 2290** delay/sampler and **I210** Spatial Expander / Chorus / Flanger, the

KLARK TEKNIK DN 780 reverb, the unique **DREW Y-Expressor** envelope modifier and **Genesis DSP**, and introducing the remarkable new **NEVE PRISM SERIES** rack featuring "V Series" EQ & mic pre/dynamics modules.

FOR FURTHER INFORMATION, OR
TO ARRANGE FOR A DEMONSTRATION
PLEASE CONTACT:

RICHARD ROSE
(914) 691-6077
11AM — 6PM
FAX: (914) 691-6822



R.D. 1 BOX 362A
HIGHLAND, NEW YORK 12528

THE SAND BOX

UNIQUE RECORDING

SKYLINE STUDIOS

CHUNG KING RECORDING

SHAKEDOWN SOUND

MILLBROOK SOUND STUDIOS

GNOME PRODUCTIONS

N.Y. MUSIC DELI

NEVE N.Y.

TANNOY®



FSM-U
(retrofit)



FSM

Imitation is the sincerest flattery.

The main competitor of our new FSM studio monitor is surely the most popular large monitor in use in the U.S. today. It is, in fact, a standard. And perhaps for good reason too. Originally conceived as a high SPL pop monitor, it took advantage of the dual-concentric principle of speaker design pioneered by Tannoy over forty years ago.

Now there's a new alternative destined to become the next standard. And although it may be the obvious advantages that establish Tannoy's FSM as the new industry standard, it's really the subtle differences that we're most proud of.

ON THE OBVIOUS SIDE:

- **Far greater** power handling ability
- Greater **full bandwidth** sensitivity
- More **extended** low frequency response
- The lowest stated phase shift of **any** large studio monitor
- **Separate** sub-enclosure for bass driver
- **Sync-source** time compensated, **biampable** passive crossover with gold buss bar contacts.
- **User defined** low frequency window allowing 4 or 8 ohm operation

ON THE SUBTLE SIDE:

It is the artful blending together of these obvious advantages that yield a more musical, accurate, powerful, non-fatiguing presentation of sound. This allows the engineer and producer to mold the finer details of a mix in a more precise way than ever before.

At **any sound pressure level** ... even at very low listening levels ... certainly at high ones. Can you say the same about the current standard?

TANNOY
Professional Products

Tannoy North America, Inc.
300 Gage Ave., Unit 1
Kitchener, Ont.,
Canada, N2M 2C8
(519) 745-1158 Telex 069-55328
FAX: (519) 745-2364

RIGHT TRACK RECORDING

BEARVILLE STUDIOS

SOUNDTRACK

POWER PLAY STUDIOS

BEARTRACKS

SSL N.Y. NBC ROCK AMERICA HBO COTTON HILL ATLANTIC RECORDING

ic Industries Association of Japan and other illustrious bodies. What I do find bizarre, however, is that in their headlong rush to bring product to market, certain digital hardware manufacturers seem intent on making our time in the studio even more frustrating than it need be.

A handful of existing digital interface standards and connection schemes now exist, the majority of which have been blessed by some or all of the organizations mentioned above, and are used routinely throughout the world.

Developed and promoted by Sony Corporation, the SDIF 2 format (Sony Digital Interface) is currently used in the company's well-known PCM-1610/30 audio processors, DASH transports, DAE Series editing systems and digital mixers. We also see SDIF-2 interfaces in several leading digital recording and random-access editing systems—including the Lexicon OPUS and Advanced Music Systems AudioFile—for reasons of in/out compatibility. For stereo connections, a trio of unbalanced BNC connectors handle the digital bit stream corresponding to left and right audio channels. A third connection carries the all-important word clock for synchronization. TTL-compatible interconnect levels and 75-ohm in/out impedances are fairly standard for SDIF-2 connections.

Of the up-and-coming digital interconnect schemes, there seems to be more confusion between interface connectors labeled "S/P DIF" and "AES/EBU" than any other. Many users of CD and DAT players, for example, as well as later-generation digital signal processors, are under the impression that the S/P DIF port (Sony/Philips Digital Interface) is a low-level, unbalanced version of the "professional" AES/EBU interface found on digital consoles and tape transports. Within stringent limitations, it can indeed be considered that way. However, the uses for which it is intended and the types of information we can expect it to carry are very different. And in the case of some S/P DIF-style interfaces, the connections are far from standardized.

The AES/EBU and S/P DIF digital interfaces were developed almost concurrently. AES and EBU representatives spent literally hundreds of hours developing and refining the

standard now known as AES3-1985, while Sony and Philips originally put together the S/P DIF spec for consumer compact disc hardware. Not long afterward, a group of Japanese electronic heavyweights—known collectively as the DAT Conference—set to work on a document that not only defined the recording format and physical dimensions for digital audio tape, but also the protocol for consumer digital-audio hardware intercommunications.

Eventually, the Electronic Industries Association of Japan elected to develop a digital interface standard that would cover both professional and consumer systems. The AES/EBU-standardized format became known as CP-340 Type I (professional), while the format developed by the DAT Conference became the basis for CP-340 Type II (consumer). As often happens in such circumstances, while the CP-340 standards were being refined, several consumer electronics manufacturers were developing equipment de-

"If you want to take advantage of neat tricks that certain DAT decks can play, then carefully check out the market."

signed to use the original CD digital interface format, often referred to as the S/P DIF interface. To accommodate these differences, an appendix to the CP-340 specification defines the ways in which early and later versions of the consumer-grade interface might be used with one another.

For professional audio applications, the standardized AES/EBU and CP-340 interfaces specify 3-pin XLR connectors and 3- to 10-volt signal levels. The data configuration includes standardized bits to be placed in the 32-bit digital "word," which comprises a 4-bit synchronizing channel ID byte, a 24-bit data word—the first eight bits being set to zero for current 16-bit PCM processors/recorders—followed by four special bits used for parity checking and other applications. (Interestingly, within Europe the EBU specifies the use of isolating transformers for digital transfer; in every other respect, however, the AES standard format is identical to the EBU-implemented format.)

MADI (Multichannel Audio Digital Interface) is a derivation of the AES/EBU format intended for larger consoles, digital multitracks and editors, and for connecting all-digital production facilities of the near future. Developed and currently being promoted by Mitsubishi, Neve, SSL and Sony, a MADI connection enables up to 56 channels of multiplexed digital audio to be transferred via video-style cable between locations up to 150 feet apart. MADI's internal, 32-bit data structure is identical to that of the AES/EBU format, with certain bits reserved to identify channel number, right/left designation and related parameters.

The CP-340 Type II, consumer-style interface makes use of the same basic 32-bit word format as AES/EBU and MADI, but with different electrical characteristics (unbalanced, 75-ohm in/out impedance, operating at 500-mV interface levels), different connectors (RCA-type phono connectors) and differences in the data carried in certain bit sequences.

It turns out that a correctly configured AES/EBU-format digital output will drive a CP-340 Type II-format digital input. The reverse is not true, however, primarily because the level of a Type II output is too low to pass data to a Type I input.

The primary source of confusion arises when we examine the S/P DIF interface on most consumer-grade DAT and CD players (including first-generation professional systems derived from such units), and on several digital mixing consoles and effects units. S/P DIF differs from CP-340 Type II in the definition and potential use of bits within the first byte of the digital data. S/P DIF digital interfaces are proprietary to Sony and Philips equipment (these firms are at liberty to implement whatever interface protocol they choose), and if you find them on consumer/semi-pro/pro hardware, you would be well-advised to check out *exactly* what standard they follow, what type of data they carry and whether the connector is compatible with CP-340 Type II interfaces.

In most applications you probably won't run into any problems mixing S/P DIF and CP-340 Type II ins/outs, particularly if you are simply connecting data between, let's say, a digital console and DAT player. Unfortunately, there is one instance where you will probably run smack into this "S/P

DIF to/from CP-340 Type II" anomaly, and that can lead to some frustration.

The S/P DIF output from Sony's PCM-2500 professional DAT machine (like the consumer DTC-1000 it is derived from) carries Start ID/Program Number information in the digital bit stream from deck to deck. This means that digital copies of DAT tapes made on 2500/1000 decks contain the same PNO/Start ID information as the original—a nice feature for those of us who make backup tapes for production chores that we need to access quickly by cut/program numbers.

However, other brands of DAT machines, because they offer CP-340 Type II interfaces, are not *necessarily* set up to recognize some information that Sony includes in the 32-bit data word and, as a result, simply let it pass by.

Another problem is that it is difficult to discover exactly what data is being carried in the "user-definable" bytes of the 32-bit word, and what hardware outputs them for use with other equipment.

Part of the problem is a logical carry-over from the recent copy code debacle. Few manufacturers seem willing to acknowledge that pro audio

hardware derived from consumer style systems—this includes the majority of early DAT players and some CD decks—must not be seen as capable of performing digital copying.

Industry response to the problem appears to fall in one or more of the following categories: "Deny that it can be done"; "Do not discuss the use of consumer-style digital ins/outs for digital copying from DAT to DAT or CD to DAT"; "Do not discuss the use of S/P DIF connectors when asked about format differences"; or, "Promote the use of AES/EBU-standardized interfaces for digital copying."

In a nutshell, if you want to take advantage of some of the neat tricks that certain DAT decks and digital processors can play—including the nonstandardized, "accidental" transfer of Start ID and time-of-day information—then *carefully* check out the various units on the market. And, if you find one that does what you need, then ask some serious questions of the competition if you will be using hardware from more than one supplier, and compatibility is a key factor. (While you're at it, check to see how the copy-inhibit bits are modified when a CP-340 Type II or S/P DIF is

"converted" to an AES/EBU digital I/O, and whether either format honors the type of copy-inhibit you want to retain if the product is destined to fall into the hands of consumers rather than pro audio users.)

While I won't accuse any particular company with actively exacerbating the confusion that exists between various interfaces, I think that certain firms could help the situation, rather than hinder it, if they would just explain what exactly the bit streams are carrying and how we can get one unit to talk to another.

Sure, we're aware that AES/EBU interfaces are *the way* to go, but if we've got material on tape in a format that we were led to believe would be supported as a pro format, why is it taking so long to learn how to pipeline some of the important data we've committed to that format? I'll get back to you soon. ■

Mel Lambert has been actively involved with the professional audio industry on both sides of the Atlantic for the past decade, and is currently president of Media&Marketing, a consulting service for the pro audio industry.

Circle #149 on Reader Service Card

Drawmer

Ingenuity



DISTRIBUTED IN THE USA BY:
MARTIN AV CORP.
423 WEST 55TH STREET,
NEW YORK 10036
TEL 212 541 5900

HARRIS SOUND INC.
5724 WEST 3RD STREET,
SUITE 303,
LOS ANGELES, CA 90036
TEL 213 469 3500

M500

DYNAMICS PROCESSOR — ALL YOU'LL EVER NEED

DRAWMER DISTRIBUTION CHARLOTTE ST. BUSINESS CENTRE CHARLOTTE ST. WAKEFIELD W. YORKSHIRE ENGLAND

TEL. 0924 378669 TELEX 556649 FAX 0924 290460



DIGITAL SIGNAL PROCESSORS

AT

NORTHEAST STUDIOS

BY LINDA JACOBSON

More than 28 different devices that qualify as digital audio signal processors (DSP) appeared in our last new products directory (*Mix*, Nov. '88). These units ranged in price from \$379 to well over \$10,000. Now, we know that no busy studio engineer can possibly invest the time to get acquainted with all of them, so we set out to discover which of these new boxes (and those introduced in the past couple of years) are "hot" in Northeastern studios.

Basically, product characteristics that cause an engineer to prefer one box over others are: quality and variety of sound presets, programmability, controllability and ease of use.

**At Sabella ▶
Recording in
Long Island,
the TC 2290
and Ultra-
Harmonizer
H3000 work in
cahoots with
each other,
reports Jim
Sabella.**

NUMERO UNO: TC 2290

TC might as well be short for "top cat," at least in the Northeast. Of all the devices

admired by folks at the two dozen facilities we contacted, the TC 2290 by TC Electronic was heralded most often. This digital delay/sampler/effects box, nominated for a Technical Excellence & Creativity (TEC) Award in 1987, is essentially a mono delay unit coupled to a gate and auto-panner that pro-

vides stereo effects. It features 1MHz, 32-second sampling/delay and 100dB dynamic range and offers 100 programs and sample presets.

Engineers at Unique Recording, Greene Street, Record Plant, Sound on Sound, RPM Sound and Atlantic Studios, all in New York City, put the 2290

on their list of hot DSPs. Manhattan's Sanctuary Sound owns *eight* of them, possibly more than anyone in the country. Gordon Etches at the nearby Chung King House of Metal proclaims, "The TC 2290 is nifty! It samples at such a disgustingly high sampling rate, everything comes back exactly the way you put it in. A lot of the others sample at 44 or 32, so we're talking a sampling rate that's like 300 times faster."

Many studio heads compare the TC 2290 to the AMS DMX 15-80S, an older and more expensive digital powerhouse. Ralph Petrarca of Rhode Island's Normandy Sound loves the TC because

"it does the same things as the 15-80S," although, he admits, "not quite as easily.

But it costs about \$3,000, while the AMS unit is about \$10k."

In New Jersey, Quantum Recording's 48-track SSL mix room contains both the AMS and TC units, but, notes Gary Salzman, "only the TC can stack your samples."

The TC box also scores at points north and south. In the Washington, DC,

market, Omega Recording's Bob Yesbeck notes, "We're very pleased with the TC 2290 because it gives us more sampling time and a wider range of effects." In eastern Massachusetts, TC 2290s help fly in sampled vocals at Blue Jay Recording, where Mark Tanzer admires the unit's "slick dynamic



delay settings, auto-pan and great chorusing.”

Remote recording requires a different approach to signal processing, but the 2290 hits the road like a pro. The last item purchased by NYC-based Efanuel Recording was a “fully loaded TC 2290,” reports Randy Ezratty. “I was turned onto it by Kevin Killen, the engineer for Peter Gabriel and Elvis Costello. A lot of guys like to use it during basic tracking. Also, last year when we were on location in Zimbabwe, Miriam Makeba’s microphone went out for a line of a song. When the session was over, we just dropped that line into [the TC 2290], sampled it and flew it back into the original recording.”

Jim Sabella of Long Island’s Sabella Recording describes the TC 2290 as “incredible,” but is even more enthusiastic about it when it works in con-



PHOTO: ROBERT WOLSCH

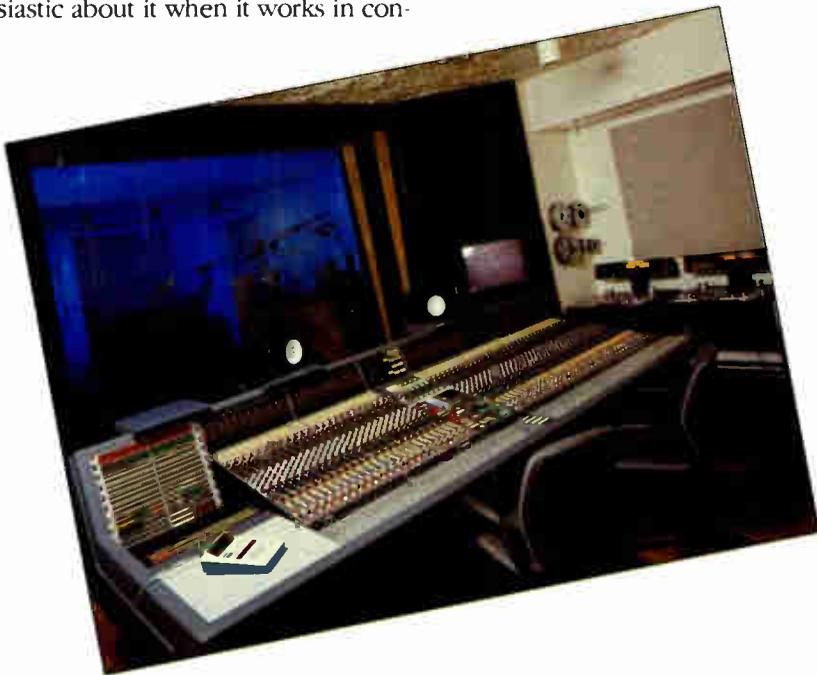
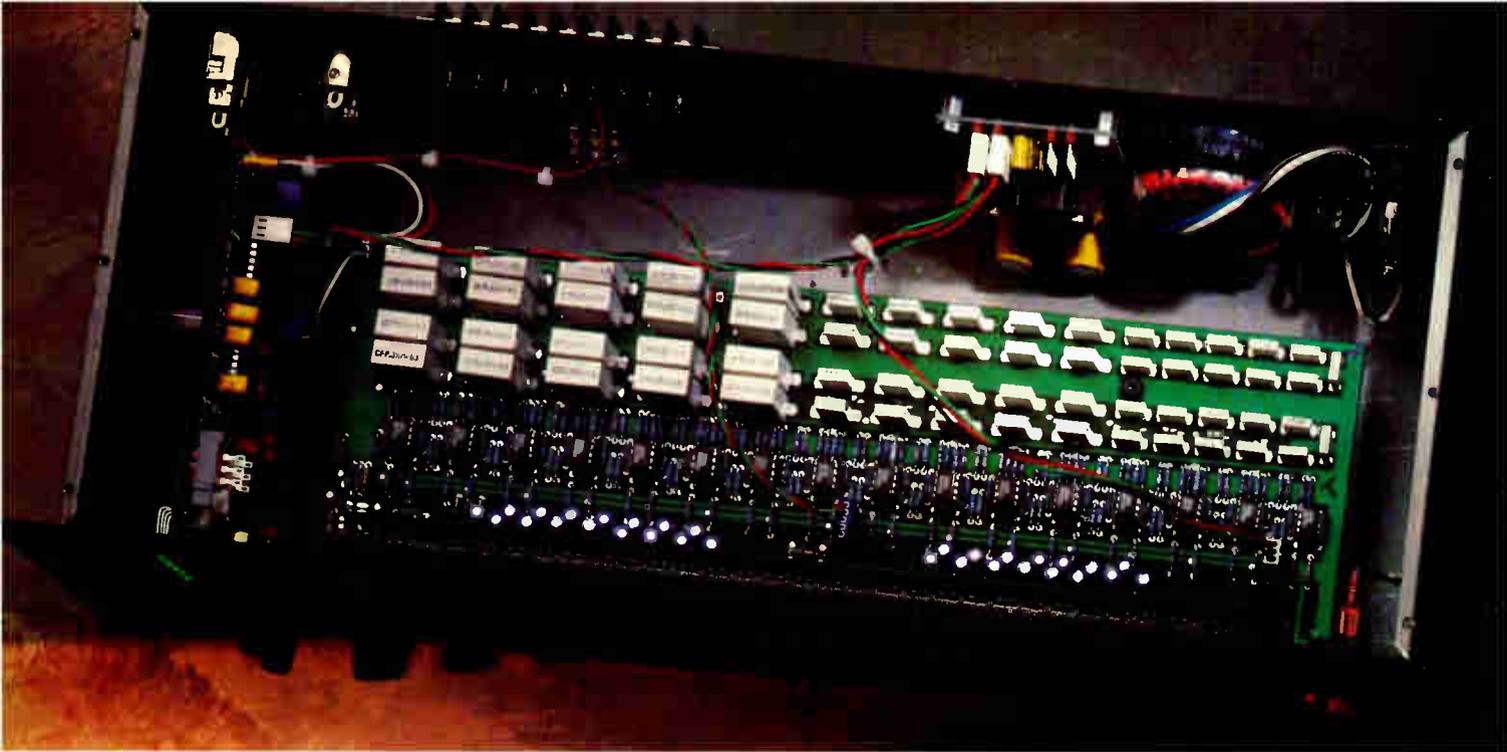


PHOTO: HARRY WIDOFF

(Clockwise from lower left) **1)** In midtown Manhattan, the relatively new Sound on Sound puts an updated Lex 480L at the top of its digital FX rack. **2)** Here at Manhattan’s year-old Marathon Recording, owned by artist/producer Kashif, the favored DSP is Quantec’s Room Simulator. But it travels with Kashif in his personal rack. **3)** There are more TC 2290s at Sanctuary Sound (downtown New York) than possibly any other studio. **4)** Power Play Studios (Long Island City), like other New York studios, admires the Eventide Ultra-Harmonizer H3000. Shown here is the facility’s MIDI room.

PHOTO: ROBERT BIRNBACH





THE COMPETITION HATES OUR GUTS.

It takes a lot of guts to compare yourself to some of the biggest names in professional audio.

Of course, when you offer the quality and features found inside the Audio Logic SC31 Graphic Equalizer,

it's easy to display more than a little extra intestinal fortitude.

The SC31 is a powerful signal processing tool designed for professional use. It features 31- $\frac{1}{3}$ octave centered bands of equalization with selectable 6 dB or 12 dB of boost and cut. But that's just for starters.

Take a look at the chart. It shows how the SC31 stacks up against the competition in the specs most important to audio engineers and sound contractors.

Maximum output. Dynamic Range.



	Audio Logic SC 31	RANGE 30	JB1/Lrei 5547A	Klark-Teknik DN 300
Noise	Less than -90 dBm	Less than -90 dBm	Less than -90 dBm	Less than -90 dBm
Maximum Output	+27 dBm	+24 dBm	+22 dBm	+22 dBm
Dynamic Range	+117 dBm	+114 dBm	+112 dBm	+112 dBm
Frequency Response	18 Hz to 30 kHz +/-0.5 dB	10 Hz to 40 kHz +0/-3 dB	20 Hz to 20 kHz +1/-2 dB	20 Hz to 20 kHz +/-0.5 dB
Number of Bands	31	30	30	30
THD plus noise	Less than .005% @ +22 dBm @ 1 kHz	Less than .01% @ +4 dBm	Less than .5% @ +22 dBm	Less than .01% @ +4 @ 1 kHz
Suggested Retail Price	\$550.00	\$699.00	\$499.00	\$995.00

Frequency response. Number of bands. Total Harmonic Distortion plus noise. In every category, the SC31 comes out even or on top.

In every category, that is, except price. Because the SC31 gives you all that capability, plus

incomparable sound quality, for considerably less than any other professional graphic equalizer. And that's what galls the competition most of all.

For a hands-on demonstration of the SC31, visit your professional audio dealer or sound contractor. Or write for additional information:

Audio Logic, 5639 So. Riley Lane, Salt Lake City, Utah 84107. Or call (801) 268-8400.

AL
AUDIO LOGIC

© 1987 DOD Electronics Corporation

*All specifications taken from manufacturer's published literature.

junction with the Northeast's next most popular box, the Eventide H3000 Ultra-Harmonizer. (Nominated for a TEC Award in 1988, this 16-bit device features stereo and diatonic pitch changing and gobs of reverb and effects programs.) When Sabella uses the TC 2290 in tandem with the Ultra-Harmonizer to fly vocals into a mix, the results, he says, are "outrageous! You can spend a whole night going through the parameters."

THE "AVIS" OF DSPs—H3000

As for the Ultra-Harmonizer, Sabella admires its versatility. "For guitars, it can be Pink-Floydish, or great for blues riffs. And you can set up your time delays so they come back at you from left to right, back and forth. It's also great for reverb." Tony Arfi at Long Island's Power Play likes the H3000 for the "interesting programs you don't hear on the normal processors," and engineers at New York's Record Plant and New Jersey's House of Music agree. Independent mixer Roey Shamir, who often works at New York's Unique Recording, owns two Ultra-Harmonizers, particularly for their "true, real-time MIDI capability." Across town at Greene Street Recording, Dave Harrington says, "The H3000 is *the* thing right now because it's like a poor man's Publison!"

David Hewitt's well-traveled Remote Recording Services (based in Lahaska, Pa.) doesn't "get too overly involved in effects because we're building basic shows, but we're seeing a lot of interest in the H3000 for its flexibility. I especially see interest in it from British and German bands on the road."

New York City's Skyline Recording installed H3000s in both rooms right after the product's release. Paul Wickliffe asserts, "I have far less trouble with these than I do with my ten-grand pieces of signal processing gear. Everyone uses the Eventide 949s as a pair to create stereo harmonization effects, but you're talking \$3,200 twice. When you have a box that does the same thing *and* other stuff at the same time—for two grand a pop—it makes sense to pick it up."

THE OMNIPRESENT YAMAHA

"In our business, you always have to have the coolest and the greatest and the latest." That's one reason Bob Blank ordered Yamaha's high-end effects box, the SPX1000, after test-driving a demo unit in his Blank Produc-

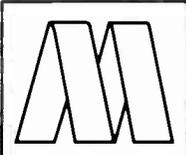
tions of Stamford, Conn. "Two great things about it: it's like a REV5 with digital ins and outs, and it interfaces with the DMP7."

Indeed, via that Yamaha DMP7 (digital mixing processor), Blank approaches signal-processing tasks from a slightly different perspective: "We have three DMP7s. Each one has the equivalent of three SPX90s inside, so I have the equivalent of nine SPX90s on-board. But it's even better. Because the whole mixer is digital, when you turn up the output gain on all the equipment, there's no hiss. Second, all the settings are totally automated. I do have a gigantic patch bay and all

the outboard processing equipment but I rarely go to it. The DMP sounds are gorgeous."

Returning to the boxes, the SPX1000 is also singled out by engineer Shamir as "a pretty powerful box," but he adds, "It has unbalanced 1/4-inch instead of XLR plugs, which I think was silly because it has digital in and out. Maybe that's how they keep it down to \$1,300."

From Soundwave of Washington, DC, to Platinum Island of New York, N.Y., Yamaha's SPX90II and SPX90 are practically taken for granted. Atlantic Studio's Steve Bramberg says Yamaha's boxes (followed by Lexicon and AMS)



MARATHON RECORDING



UP and RUNNING

with



Neve

Studio A features a Neve V60 with Necam 96 Automation

Studio B features a Neve 8232

Two 48/24 Digital/Analog Studios with a full complement of MIDI and SMPTE capabilities

Contact: Susan Tobocman

Marathon Recording • 12 W. 37th St. • New York, NY 10018

(212) 967-1515

Circle #078 on Reader Service Card

are the most requested items at Atlantic: "All the Yamaha products—SPX-90s, REV7s and REV5s—are big because they sound good and are reasonably priced and very versatile."

Manhattan's post-oriented Servisound also owns much Yamaha signal processing equipment. Rick Elliker reports that each of the facility's six rooms contains one or two SPX90s. "An engineer can walk into any studio and know the device, instead of having [to operate] a Lexicon in one room and an EMT in another. The majority of [track elements] we record already exist, such as music on CDs, so we only add processing to

effects and voice. One SPX90 does it. With two of them, you can put a gate on one thing and reverb on another. For \$600 you've got three delay lines, four different reverbs, compressors, equalizers, all in one device."

"CAN'T DO EFFECTS WITHOUT MY LEX"

That could serve as an axiom in the Northeast. Record Plant's Kooster McAllister handles remotes, so he's interested in "getting the tracks down right, but I bring a couple of reverb units to wetten up the monitor mix." One of his choice reverbs is the Lexicon 480L digital effects system, nominated for a

1987 TEC Award for its sampling, mixing and effects capabilities (it can work as two discrete units configurable in mono split, stereo split or stereo cascade).

"The Lexicon 480L is one of our best units," agrees Matt Lane of Carriage House Studios (Stamford, Conn.), which has the new 480L update that offers increased sampling time and pitch-shift options, one reason for its popularity in music mixing places like Platinum Island of New York and in post-production houses like Soundwave of DC. At New York's RPM Sound, it's "the most often used box," notes Robert Mason. "It's simple to operate, the quality is outstanding and people know the LARC controller. All the studios have had LARCs for years, first with the 224; [Lexicon] did the right thing by making the 480 compatible with the LARC." When Sound on Sound opened in Manhattan about two years ago, it went with the updated 480L as the primary reverb unit. According to David Amlen, "You can change the controls on its programs, it has two machines in one, and as far as I know, there's not a unit on the market that's cleaner."

The 480L is the personal favorite of David Hewitt. "We use it on a lot of classical work, which is where you *really* hear the difference in the algorithms on that digital stuff," he says. "You can put [processing] on a snare drum or electric guitar and it sounds fine, but start sending something from an acoustic orchestra to those chambers and you find out fast about their true sound. The 480L has lovely programs that take care of classical music and acoustic jazz."

While the updated 480L is the newest DSP from Lexicon, older Lex products still work on session after session. Steve Bramberg of Atlantic acknowledges, "Lexicon is something that everybody requires," and adds, "The 224XL is still real hot, and the PCM42s and PCM70s are always in demand." Rhode Island's Normandy Sound uses the 224X, PCM42 and PCM70. According to Normandy's Ralph Petrarca, "Lexicon is a standard that separates the semi-pro from the pro facilities. Any respectable studio or engineer has at least a rack of that stuff."

The PCM42 may have debuted years ago, but new mods are popping up to rejuvenate it. Gary Salzman reports that his New Jersey studio, Quantum, owns four Lexicon PCM42s, "and two of them have 20-second samplers that

BRING YOUR MUSIC UP TO DATE

...nrd...
NORTHEASTERN DIGITAL RECORDING, INC.

Services: Transfers from 1/4" and 1/2" analog (Dolby A, Dolby SR, dbx) to Sony PCM-1610/30 for CD mastering or archiving.

Digital Transfers from other digital formats: PCM-F1, -701, -601, or -501, DASH 1/4", R-DAT, dbx 700, others.

Digital Editing and Compact Disc tape mastering with the Sony DAE-1100 Digital Editor.

Complete Compact Disc services.

Rentals.

Credits: Frank Zappa, Arlo Guthrie, Richie Havens, Kingston Trio, A&M, Polygram, RCA, Rykodisc, Rounder, Newport Classic Folk Era, Titanic, Omnibus, Bose, Polaroid, Wang.

All editing performed by Dr. Toby Mountain, PhD. Music

Call: 508-753-1192 for information, prices and our PR package.

Circle #040 on Reader Service Card

★ LEGAL DAT TODAY ★

Your Competition Has The Cutting Edge... Why Don't You?
Enter The True Digital Domain!



Full Line Of Professional
 Digital Processors, Recording
 Consoles And Sound
 Reinforce-ment Electronics.

- English Operating Manuals
- All Connecting Cables
- AC Converters



SONY PCM-2000
 Super production machine

- AES/EBU digital I/O
- Reproduce SMPTE/EBU time code
- Professional portable DAT recorder



SONY PCM-2500
 Professional two piece studio standard

- Wireless remote control
- Fully programmable
- Switchable sampling freq. 32/44.1/48 khz



TECHNICS SV-D1100
 18 Bit high resolution DAT

- Full function remote
- 6-speed CPV digital servo system
- Reduce conversion error by 75%



SHARP SX-D100
 Professional recording, production and broadcast applications.

- High quality
- 2-channel
- Digital audio tape deck



PANASONIC SV-250
 A masterpiece of miniaturization

- 9 x 1 3/4 x 5 1/2" under 4 lbs.
- MASH A/D converter w/ 64X O. Samp.
- Digital-to-digital editing



PANASONIC SV-3500
 Years of experience w/ rotary head tech.

- 18 Bit w/ class AA amp circuitry
- Switchable sampling freq. 32/44.1/48 khz
- Rack mounting kit & remote control

Did You Know:

DAT recorders offer you better sound quality than CD players, plus all the benefits of a cassette recorder.
DAT cassettes are half the size of standard analog cassettes, and are a higher quality tape.
DAT recorders are fully programmable, with high speed (up to 300 times playback speed) indexing and music search.

CHOOSE FROM THE FOLLOWING:

- Sony • Panasonic • Technics • Tascam
 • Kenwood • Pioneer • Akai • Sharp • Alpine
 • Nakamichi • Denon • Yamaha

Knowledgeable, Friendly Customer Service.

American International Audio Video

127 ROUTE 206 TRENTON, NJ 08610



DAT HOTLINE
 609-888-4414

609-888-2930
 FAX ORDERS

FLEXIBLE LEASING PROGRAMS
 START AT

\$69 per month

- NO MONEY DOWN
- QUICK APPROVAL
- COMMERCIAL ACCTS WELCOME

- USA Written Warranty
- Nationwide Service Centers
- Pro User Extended Warranties





EUROPADISK, LTD.

DMM[®] MASTERING

Direct Metal Mastering—a quantum leap in LP quality

RECORD PRESSING

LP/7"—Audiophile quality

CASSETTE DUPLICATION

- State-of-the-art European Equipment
- Dolby HX-PRO on Master & Duplicators
- Fast Turnaround

JACKET & INSERT PRINTING

CD PACKAGES

DIGITAL STUDIO

- CD Masters
- Neve DTC
- Sony Editing

EUROPADISK, LTD.

75 Varick Street
New York, NY 10013
(212) 226-4401



Digital signal processing the Blue Jay way is via MIDI and the Macintosh; so the Lexicon 224X at this eastern Massachusetts studio is controlled by a Clarity XLR effects automation interface.

people really like. It's a phenomenal mod that [was developed] here on the East Coast. We found out about it through Martin Audio, who sold us the PCM42s and handled the mod."

At Blue Jay in Massachusetts, engineer Mark Tanzer (who likes the PCM-70 for reverb and ambience on snares and toms, and its circular delay on vocals) adds another major, contemporary consideration: "Lately I'm getting into MIDI control of my outboard gear, through the sequencer. I own the Clarity XLV [effects automation interface, updated in June '87]. It MIDI's up the Lexicon 224X, so through the 224's MIDI implementation, I can control and record any of its parameters. And it's really easy to use with the Macintosh. Also, the Clarity's eight control-voltage outputs let you control things through MIDI, like delay lines and compressors that are VCA-based. You can even control PCM42s on the fly if necessary."

KEEPING QUIET ABOUT QUANTEC

"I wanted to keep this a secret, but I might as well let the cat out of the bag," confides Shamir. "I'm really into the new Quantec [QRS/XL, an audio computer introduced in mid '87], and I've got two of them in my rack. It's

expensive, but it's happening! That's due to its 32-bit math and its ability to be controlled through the Macintosh computer. The actual parameter changes come from the Mac, but it is a stand-alone unit with presets you can use without editing. The software comes with the package, and it works on IBM computers as well."

Across the river at New Jersey's House of Music, Charlie Conrad concurs. "That new Quantec is very hot here. You can do so much with it and it doesn't take up a lot of room. It's easy to use, and it runs off a Mac. That's the computer most people use out here."

THE ALESIS PACK

Fred Guarino Jr., head of Tiki Recording on Long Island, reports, "We just bought six of those Alesis MIDIVERB IIs [the 16-bit, 99-program processing system that won a 1988 TEC Award]. We put two in the MIDI room, two in the production room and two in our main room. They sound *unbelievable*; the reverb density is just beautiful. It's embarrassing how good a lot of those programs sound compared to [more expensive units]."

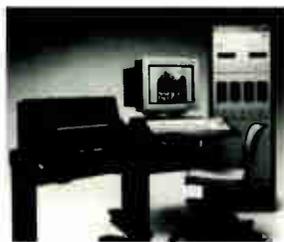
"Now Alesis has come out with the

—CONTINUED ON PAGE 184

Find the red grain of sand
in the middle of the
pile. Now put it on top.
Do not disturb any
of the other grains.



You have 0.04 seconds.



Instant locating. Instant copying. Instant moving and back-timing. Any segment, on any track. That's the edge PostPro's™ true random access technology gives you. Best of all with DESC™, our new controller/editor/locator, PostPro's most advanced editing features now have the intuitive feel of the tape remotes you're used to. One more thing: the PostPro is designed with your growth in mind. Add an on-line SFX or ambience library with our 2Gb Optical Disk. Or double the number of your PostPro tracks with our new MaxTrax™ option. With all this going for it, no wonder PostPro is an instant success. To find out more call **1-800-848-4400 ext 356 (9 to 5 EST)**



NEVER SAY NEVER

ALMOST ANYTHING GOES ON

FLIPPING THROUGH THE CHANNELS one last time after exhausting all the Sunday Sports Extra shows, a late-night mirage appears. It's David Sanborn growling an alto sax solo behind Al Jarreau. When the song ends, Dizzy Gillespie gets the place swinging. South African singer Johnny Klegg then bounces around the stage with his group. An antique video of the legendary vocal team Lambert, Hendricks & Ross fol-

lows, before rock and soul belter Darlene Love takes charge. "One of the great things about the show," Jarreau comments later, "is that it's really all about the music and different combinations of people sharing a stage."

Other highlights of *Sunday Night's* first season were James Taylor singing with Milton Nascimento, Paul Simon producing Eddie Palmieri, Boz Scaggs

ripping on guitar behind soul singer Betty Wright, and Donald Fagen chomping a DX7 behind guitarist Earl Klugh. "The idea that David [Sanborn] had from the beginning was to pair people you wouldn't ordinarily see together," explains producer John Head. "People have been very good about that. Mark Knopfler came on and basically just backed Randy Newman. He had a very selfless attitude."

The house band on the show is def-

BY ROBIN TOLLESON



The "Sunday Night" band (clockwise from left) Marcus Miller, Philippe Saisse, Omar Hakim, David Sanborn, Hiram Bullock.

ON SUNDAY NIGHT

TV'S FINEST MUSIC PROGRAM

initely a dream. Host David Sanborn accompanies all the artists. Musical directors for the show include bassist/producer Marcus Miller and keyboardist George Duke. Guitarist Hiram Bullock, drummers Omar Hakim and J.T. Lewis, and keyboardist Philippe Saisse all shift effortlessly and effectively behind artists such as Youssou N'Dour, Marianne Faithful, Joe Cocker and sax player John Zorn.

"By the time the audience is there [for the taping], everyone's pretty sure where they're going," says Jarreau. "Still, there's room for people to do their own thing; nobody is too seriously locked in. And what a band. I mean from the 'tries,' from the downbeat, these guys are just great. They're well along by the time you even start rehearsing the stuff."

John Zorn's piece, an avant-garde blend of free-time playing and break-neck bebop, gave even this band all it could handle. "We worked a lot on that," says Sanborn. "It took a while to get that down, and it was fun." Head adds, "It was never played the same way twice, even in rehearsal."

"What is a lead-pipe cinch certainty," Jarreau says, "is that the musicians on the show are comfortable, so they can do their thing."

"If they don't feel comfortable playing there, they're not going to perform well," says Stacey Foster, who, as technical consultant for Lorne Michaels' Broadway Video, oversees the audio on *Sunday Night* and *Saturday Night Live*. "If they don't perform well, no matter how you mix it, it's only going to be so good."

Central to performers being comfortable, according to Foster, is a good stage monitor system. *Sunday Night* uses a Clair Brothers' proprietary system, with TAD JBL drivers (20 mixes in all), operated by Tom Herrmann and Kevin Hartmann. Midas consoles

are used for the monitor system. Everyone usually gets his or her distinct mix. "We often run 12 mixes on the A Stage," Foster says, "with six people in the house band. You might have Stanley Turrentine sitting in with David. Stanley will have his own mix. If Ashford & Simpson are singing backup vocals, they'll have their own mixes, plus if Sam Moore is singing,

There have been a lot of challenging moments for the crew of *Sunday Night*: Joe Walsh and Jack Bruce maxing out the system doing "White Room"; the Eddie Palmieri Octet, with Palmieri storming on and off the set in a snit; the sound pressure levels onstage when Boz Scaggs came in with a full horn section.

he'll have a mix. The monitor mixer's job is really demanding. That's why there are two full-time monitor mixers. One works the floor while the other is working the console."

There have been a lot of challenging moments for the crew of *Sunday Night*: Joe Walsh and Jack Bruce maxing out the system doing "White Room"; the Eddie Palmieri Octet, with Palmieri storming on and off the set in a snit; the sound pressure levels onstage when Boz Scaggs came in with a full horn section. "Boz isn't the loudest singer in the world," Foster recalls, "and it was a bit of a problem because there was a big horn section, and their monitors were screaming so they could hear the other end of the row playing over the top of their trumpets."

"We're doing a show soon with Sarah Vaughan's trio, an upright bass, acoustic piano and probably brushes on a Sonor jazz drum kit. On the other stage we'll have a whole electronic thing, a completely different texture and styling. So it takes sound engineers who are able to deal with those various things and get the best of both out there."

Sunday Night is filmed live in New York before an audience of about 200. There are two music stages in the studio and a third spot where some introductions and interviews are filmed. There are actually three different audio mixes going on. Robert Selitto mixes for the house on a Yamaha PM-3000 and a Meyer sound system (14 boxes, with sub-bass bins). John Harris records all the live sound from the two stages for television onto two 24-track digital Sony 3324s (32 of the 48 tracks are music, 16 are production elements). The tapes are synched to SMPTE time code and taken to Howard Schwartz Recording for remixing by Michael DeLugg or John Harris. Jeff

What LA's

Largest

Pro Audio

Dealer

Can Do

For You

With over 200 different brands of pro audio/video equipment, we offer you the best selection in the west. And we carry a much larger inventory so chances are we have what you need in stock.

We'll keep you abreast of new developments, new options, and updates for your equipment so you're always current and usually ahead of the rest of the industry.

New Demonstration Rooms

Since we moved to larger quarters here in Burbank we've opened *two* new fully equipped showrooms. In the Pro Room are three complete, operating production systems—consoles, monitors, tape machines (including 32 track digital), and signal processing/effects gear. Our second room has three more complete production systems set up to hear and compare. This room caters to the

audio/video needs of musicians and production studios.

Just the Facts, Ma'am

Things change quickly in pro audio. To make sure everyone here knows all the facts about the latest equipment, we've added a Product Specialist to our staff. His *only* job is researching equipment—reading brochures and tech manuals, going to trade shows, talking with manufacturers—and sharing that knowledge with our customers.

New Central Location

We're easy to get to from Hollywood, LA, and the valleys. And with more room, we've enlarged our technical and parts departments for even better service and support.

Come by and visit us in our new building. Turn some knobs in the demo rooms. Or just call and we'll be happy to discuss your pro audio needs.



Office Staff (l to r): Niki Simpson (Accounts Payable), Carol Gumbel (Controller), Shanah Metzelaar (Receptionist), Darrin Miller (Purchasing), Michele Schwartz (Accounts Receivable), Jim Kropf (Delivery), Front: Brian Cornfield (President)



Sales Staff (l to r): Nat Hecht, Paul Freudenberg, Paul Svenson (Sales Manager), Karyn Thomas (Sales Assistant), Philip Celia, Mark Lever, Vanessa Perea (Tape and Accessories), Garth Hedin, Robert Corn, Ben Ing (Product Specialist), Constantino Psorakis



Our Pro Demo Room: Three different fully operating production systems, plus a vast array of outboard gear



Technical Staff (l to r): Steve Smulian (Service Manager), Paul Hulse (Senior Technician), Rik Shannon (P.O.M.P.), Greg Dougan (Parts Manager), (Not Pictured: Nello Torri)



Sales/Service/Design

ea Everything Audio
Advancing with Technology

2721 West Burbank Boulevard • Burbank, California 91505
Phone (818) 842-4175 or (213) 276-1414 • Fax (818) 953-2908

Circle #138 on Reader Service Card

World Radio History

Pincus records all the RF (radio frequency) mics on the show—the interviews, introductions and such—and post-production mixer John Alberts takes the music and the production elements and makes it into the overall show.

“We record *Sunday Night* live to tape, so there’s very little videotape post-production done on the show, other than integrating commercials and stuff later on,” says Foster. “Every now and again we fix a shot, but it’s minimal. Most of the post-production work is in the audio field. It’s usually remixing, but I would be lying if I told you we don’t ever overdub anything. We try not to. I’m certainly not there to try and destroy the live feel by overdubbing it to death and making it sound too studio, but overdubbing is there to rid somebody of embarrassment.”

The *Sunday Night* band usually has to learn six to eight new songs per show, and they tape twice a week. Sanborn works four days a week rehearsing at SIR, and two days taping at Manhattan-based Modern Telecommunications Inc. (M.T.I.). The goal is to tape the show straight through without stopping. “We try to do it as live as

possible. Sometimes we have to stop tape, but it certainly is sequential, as you see it,” says Sanborn. “The textures change so dramatically, even within the confines of one show, that it’s sometimes hard to get all the balances straight, to get the right kind of context happening.”

The archive clips of great jazz and blues artists shown each week are found by Head and assistant Kathy Vasapoli in the Library of Congress. “We’ve tried to stay with things that are in the public domain, just for financial reasons,” explains Head. “There’s still a surprising amount of good stuff that’s in the public domain.”

“Thelonius Monk, with Count Basie and Jimmy Rushing watching. Ronald Reagan and Louis Jordan, that’s something you don’t see everyday,” Sanborn says. That much can be said about most of *Sunday Night*.

“There are surprises all the time, and we don’t always react quickly enough,” says Head. But tech consultant Foster enjoys the challenge: “The vibe of doing a live television show is so important. That pressure puts an edge on everybody and everything. The crew members are happening, the performers know they’ve got to

get it together, and that pressure is great for productivity.”

“It’s a lot of moving around,” says Sanborn, who jogs from set to set for introductions, sax solos or small talk with co-host Jules Holland, sneaking into the control room for a quick replay when possible. “It’s a lot of work, but it’s very rewarding, because we get a chance to present music to people they don’t ordinarily see on television.”

Foster’s job is to make sure producer Lorne Michaels’ shows sound good. “In the 1970s, sound was completely an afterthought,” Foster says. “But Lorne says shows that he does are radio shows with pictures. The sound end of the show is paramount to him because he does comedy. And if you can’t hear the schtick, you’re not about to laugh.”

Foster continues, “There’s a real science and art to knowing how to record, mix and engineer the best possible sound for those two 3-inch speakers in a stereo TV, or that one 5-inch speaker in a mono TV. In television we tend to mix wide, bright and wet, just because it gets dull, it gets narrow and it gets dry.

“We check mixes on the worst pos-



THE 1989 TEC AWARDS

Join us

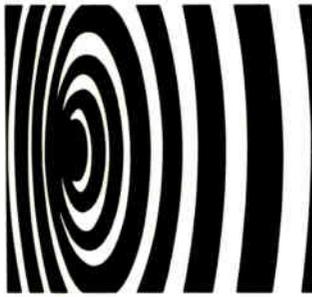
**Manhattan Center Studios
New York City, New York
October 19, 1989**

Mix invites you to join your peers in the professional audio industry in paying tribute to the outstanding technical achievements and creative contributors of 1989.



The fifth annual Technical Excellence and Creativity Awards will be presented at the Manhattan Center Studios, 311 West 34th Street, on the first night of the AES Convention.

For tickets and other information, call Karen Dunn or Hillel Resner at (415) 653-3307.



Electronic Acoustic Research Systems, Inc.

E.A.R.S., Inc.
90 Windom Street
Boston, MA 02134



Reference Monitors

E.A.R.S., Inc. is a FULL service company specializing in:

- Acoustic Design & Consultation
- System Design & Installation
- Pro Audio Sales

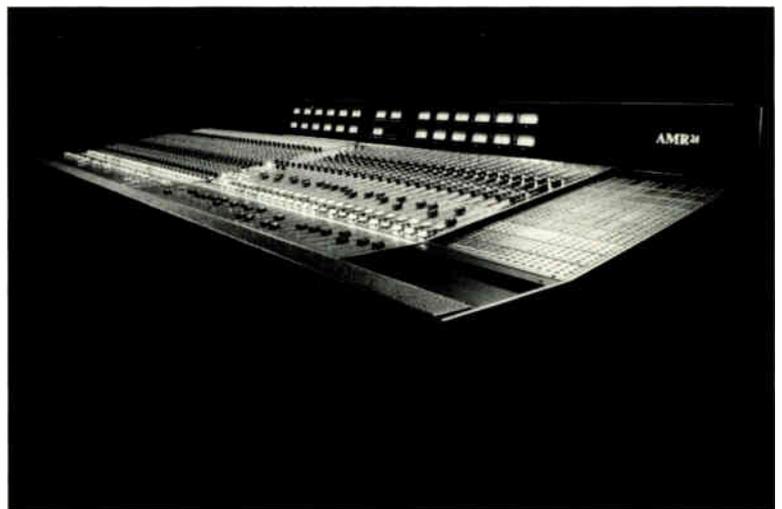
We are dedicated to excellence in all areas of professional audio. Our staff has years of experience in both the studio and the concert hall. We offer full turnkey installation of studios, theaters, concert and club sound systems. With computer-aided design and TEFT™ analysis, E.A.R.S. offers solutions to the most complex acoustic problems. We manufacture our own source and speaker selectors, cable harness and cue systems, mic patching systems, patchbays and equipment racks. E.A.R.S. also makes a variable acoustic wall system (VARA-WALL™) for refined and dramatic acoustical effects. Our in-house service facility provides custom design and fabrication, as well as repair and studio maintenance.

Some of the exceptional products available from E.A.R.S., Inc. are:

DDA, Neotek, Tannoy, Tube-Tech, BSS, Drawmer, Turbosound, Klark-Teknik, AKG, TC Electronic, White Instruments, Milab, Crest, Sennheiser, Gentner, BBE, Aphex, Ashly, Orban, RPG Diffusors, Star Cases, Beyer, Stewart, Tour Case, Juice Goose, QSC, Monster Cable, ART, Cramolin

Multitrack recorders, Samplers, Editors, Synchronizers, R-DAT, Cassette Decks, MIDI Products, CD Players, Acoustic Foam

Call for our free brochure.



Recording & Sound Reinforcement Consoles

Let E.A.R.S. assist on your next project.

Boston, MA 617-783-5229 • FAX 617-254-8781 • Orlando, FL 407-380-EARS

sible thing that we can, just to make sure there's enough bass and it's wet enough. I listen to a lot of mixes on a cassette machine in my car on the way to and from work. A lot of digital effects devices don't add up well in mono, but I've found the AMS and Lex 480 work in stereo and have better mono compatibility."

Sanborn and Marcus Miller also accompany the tapes of the show for remixing and sweetening whenever possible. "Sometimes, because of time and budget limitations we couldn't remix shows just the way we would have liked," Sanborn says. "In the first 12 shows we learned what worked and what didn't. We're going to have more thorough remixing capabilities now after every show. Sometimes it's hard to balance all the instruments and get that thing happening live when there's so much different music happening each show."

"Live, you only get one shot at it—while they're playing, you're mixing," says Foster. "When you have it on a multitrack tape machine, you can run it back 30 times to get each part just right, mix it more to the picture and get more leakage out by automating the vocal faders down when they're not singing. You can really help the overall sound of the rhythm section by getting rid of a lot of leakage here and there. I don't want my shows to sound too studio-esque, because they are, after all, live performances in front of a live audience. But you don't want it too sloshy and washy."

Sunday Night is mixed in stereo, and Foster believes in placing instruments, panning-wise, as wide as the widest shot. "On a stereo TV you would be able to place the musicians and tell from the panning what parts the different guitarists or sax players were playing. For drums, we pan the tom toms' camera perspective as opposed to drummer perspective. I'm usually pretty literal about the soundtrack backing up the picture. When the picture cuts to the percussionist, who may just be grooving with the tune, you'll find I push the percussion licks a couple of dB for that shot. I always mix to the picture on my shows. We tailor the perspective of what we're doing, mix-wise, to the picture. Not to the point where it's not working musically or it's inappropriate, but it's amazing how, psychologically, your ears are affected by what you see."

David Sanborn's sax sound, a trade-

MUSIC CITY

**WE'RE THE ONE!
WE HAVE IT ALL!**
SERVING YOU WITH OVER 50 YEARS EXPERIENCE!

**CALL NOW!
318/234-5021**

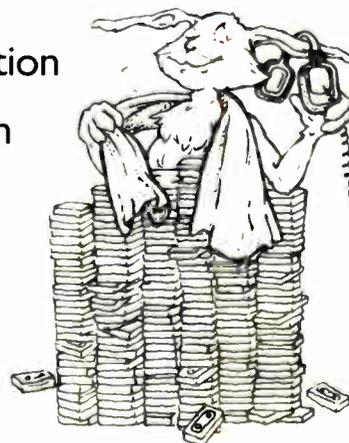
4000 1/2 Johnston St. Lafayette, LA 70503

VISA MasterCard

Circle #068 on Reader Service Card

ian Does it 10,000 times a night!

- Cassette Tape Duplication
- Video Tape Duplication
- Graphics, Printing & Packaging
- 100 - 100,000 Copies.
On Time, On Budget



ian Communications Group, Inc.
10 Upton Drive Wilmington, MA 01887 (508) 658-3700

Circle #069 on Reader Service Card

mark in the industry on recordings by Stevie Wonder, James Taylor, David Bowie, Bob James, James Brown and dozens of others, is treated slightly for the TV audience, according to Foster. "We often have a nice chamber or plate reverb sound on his sax, with quite a bit of predelay. Depending on the tune, we put slightly harmonized delays on as well so that we have different delays in the left and right channels, and a slight pitch bend on both delays.

"Guitars are usually miked and not taken direct, because a guitarist's sound is the sound of effects and the

amp played through. Some guitarists will only play through Mesa/Boogies; some will only play through Dean Markleys. On Hiram's amp we use a Sennheiser 421 mic. For others I go from an SM57 to a Beyer 88, depending on who is playing. If Carlos Santana doesn't see a 57 on his amp he won't play. Of course, we comply."

Guitarist Bullock has a reputation for playing loud, and that has caused some problems on the set. "If he gets a bit out of control with his levels, then everyone else has to turn up to keep up with him," says Foster. "On-stage levels that are too loud end up

destroying vocal mixes and things. So it's our job to try and control the musicians and say, 'Look guys, for the interest of the show please help by keeping levels under control.' That's something you fight every day in my business."

When bassist Marcus Miller played the upright acoustic with guitarist Slim Gailiard, they used a combination miking technique. "Marcus has a pickup in the bridge of the instrument, and we also put an RE-20 in close on it, and mixed the two together," Foster says. "An upright bass with just a pickup on it can sound a bit stringy, and you don't get much body. You want to round it out a bit with a different microphone." When playing the electric bass, they use a direct signal. "Marcus' sound is on the axe, not the amp," Foster says. "He plays through very minimal electronics on stage. Just a basic amp with a 4- by 10-inch cabinet, and he gets what he wants out of it."

For the drum kit, Foster says they use a Shure SM57 on top of the snare, an SM98 on the bottom, and 98s on all toms as well. "They clip on to the rims of the toms and really minimize leakage from drum to drum, and they handle the sound pressure level. On the kick we go from a 421 to an AKG D-12 to a Beyer 88, depending on how Omar or J.T. Lewis sounds on the kit, and how they're playing it. For overheads, we usually use AKG 451s, sometimes 460s or AKG 414s."

The keyboard players use direct lines to the mixing consoles. "George Duke has a Korg grand piano plus a synth mix. We take digital grand left and right, plus a synth mix left and right. And Philippe Saisse has a couple racks of equipment that would blow your mind. He has his own onstage 24-input console just to mix his sound. On the multitrack tape machine I just get Philippe left and right. He uses his Akai MIDI controller, and runs racks of samplers and sound-making devices."

"One of the great things about this show is that the music is so good, even if I was doing a lousy job, it would still be a good show to watch," says Foster. "Hopefully the tech end of it upholds the artistry that's going on on stage." ■

Robin Tolleson is a contributor to Mix, downbeat, Musician, Modern Drummer and other publications.

Check
Your
Addition

NEW MATH FOR RECORDING STUDIOS

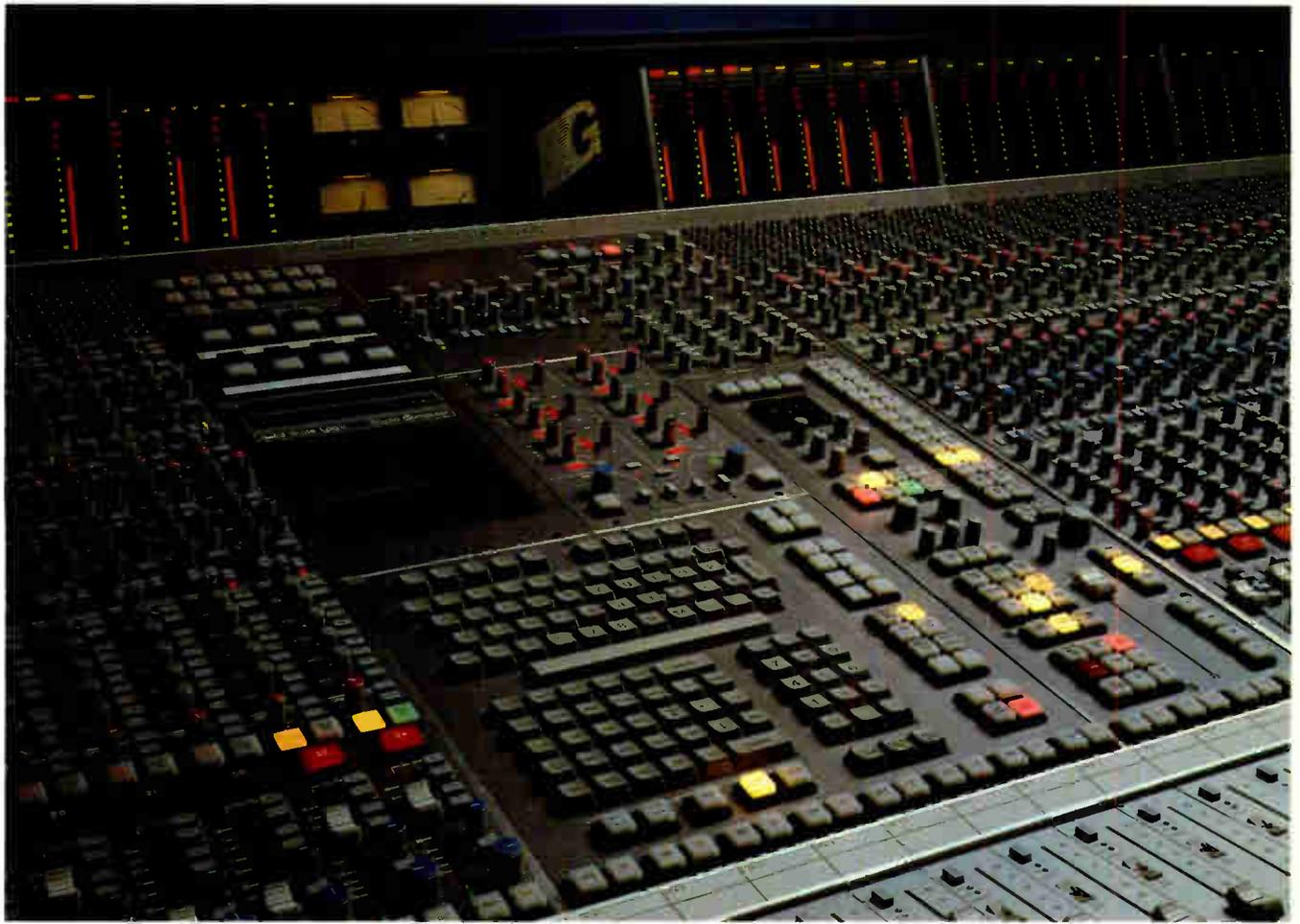
1	6056 SSL Mixing Suite
1	4056 SSL Mixing Suite
1	4048 SSL Tracking-Remix
+ 1	MIDI Production Room



723 7th Avenue, New York, NY 10019

(212) 730-1035

SSL G SERIES



For Tracking And Mixing

A production becomes a classic when the sound of the console matches an inspired performance, and the mixing system is true to the talent of the producer and engineer.

With G Series, every stage between the microphone and the recorder sounds rich and full. The Total Recall Computer instantly stores all eq and mic settings.

monitor mixes and routing – from the first track you lay to the last mix you create.

Today, there is more pressure than ever to produce a finished mix – fast! The tracking data compiled on an SSL means fast, effective mixing on an SSL.

If you want to produce classics — give us a call.



Solid State Logic

Oxford · Paris · Milan · New York · Los Angeles

Begbroke, Oxford, England OX5 1RU • (0865) 842 300
1 rue Michael Faraday, 78180 Montigny le Bretonneux, France • (1) 34 60 46 66
Via Cesare Cantu' 1, 20092 Cinisello Balsamo, Milan • (2) 612 62 81
320 West 46th Street, New York, NY 10036 • (212) 315-1111
6255 Sunset Boulevard, Los Angeles, California 90028 • (213) 463-4444

SSL Representatives: Australia: Venezuela (58) 2-987-4845 Audio Consultants Co Ltd, Hong Kong (852) 3-7125251 Six Ing Bourne, NSW, Sydney (61) 2-1454600 China, Eastern: Caracas (41) 24-71-1600 EMI, West Germany (49) 7825-1011 Dr W. A. Günther, Switzerland (31) 1-391 3939 Savana Comunicacoes Ltda, Brazil (55) 21-274 5009 Suster Revon Japan Ltd, (81) 3-320-1101 Synco International Pty Ltd, Australia (61) 2-406-4700 TEF, Turkey (90) 41-380296 Trans European Music, Belgium (32) 2-569 1823

US TOLL-FREE NUMBER 800 343 0101

by Blair Jackson

TOM LORD-ALGE

THE GRAMMY-WINNING ENGINEER/PRODUCER IS ON A ROLL

“I think I’m one of a new breed of engineers,” Tom Lord-Alge says with characteristic confidence as he sits in a lounge at San Francisco’s Different Fur Recording. “The new breed is willing to *go for it*, do whatever it takes to make a great record. They’re not afraid to use EQ. They’re not afraid to use compression. They’ll take control of a session even if they’re not producing. They’re not timid. They do whatever it takes to make it sound different, less predictable—like *totally* whacking things out of perspective. It’s a little like hot rod mixing.”

This could just be bold talk from some young Turk, except that Lord-Alge has the credentials to back it up.



PHOTO: PAT JOHNSON STUDIOS



PHOTO: BLAIR JACKSON

In February he won his second Grammy for engineering (for Steve Winwood’s *Roll With It*), and over the past few years he’s become a real triple threat—in demand for his producing, engineering and mixing skills. Just 27 years old, he still has the fire of youth burning inside, self-assurance that borders on arrogance at times and enough energy to wear out the heartiest artist (or interviewer, for that matter). I wasn’t surprised to learn he’s from New Jersey.

“There was always music in the house,” Lord-Alge says of his youth. No wonder: his mother is a jazz pianist of some note (Vivian Lord), and his father was in the jukebox business. Unlike his older brothers Jeff and Chris, Tom didn’t play music. Instead he spent his late teen years doing live sound for his brothers’ (and other) bands. “I did it all,” he says. “I’d hump

Top: Starship returns! Clustered around Tom Lord-Alge at The Plant in Sausalito, Calif., are (clockwise from back left): Don Baldwin, Brett Bloomfield, Mark Morgan, Mickey Thomas and Craig Chaquico.

At left: Lord-Alge at Different Fur recording studio in San Francisco.

MASTERING THE NEW AGE



01 DIGITAL PRODUCTION CENTRE

Mastering and editing are as important to the quality of a record as the final mix. With the emergence of CD as the dominant consumer software medium, a new approach is needed to bring the quality of service traditionally provided by the vinyl disc mastering room to the digital domain.

01 provides all the sonic processing, editing and final assembly facilities required for this

task, with no loss of digital integrity. Combining the advantages of a hard disk recorder with familiar multi-channel console controls, 01 is immediately accepted by engineers, editors and producers.

More importantly, by extending creative control over the mastering process, 01 enables a quality of production to match the new age of release formats.

SSL DIGITAL

Solid State Logic

Begbroke, Oxford, England OX5 1RU (0865) 842300

Paris (1) 34 60 46 66 • Milan (2) 612 17 20 • New York (212) 315 1111 • Los Angeles (213) 463 4444 • Tokyo (81) 3 320 1101
U.S. TOLL FREE NUMBER 800 343 0101

the gear, drive the truck, load the P.A., set up the mics and mix the shows." Eventually he became successful enough that he had roadies do some of those tasks.

One New Year's Eve, though, "I got in a fight with the band I was working for. They fired me, so I took all my gear and left them high and dry without a P.A. on New Year's," he says with a sadistic chuckle. "The day after New Year's I started working with my brother Chris as an assistant engineer. I did that for two months and then started engineering my own sessions."

His rise since then has been steady and fairly rapid. Lord-Alge cut his teeth mainly at Unique Recording in Manhattan, working on a broad variety of engineering and mixing projects, and eventually got into production as well. Though he is best known for engineering the records that earned him his Grammys—Steve Winwood's *Back in the High Life* and *Roll With It* (which he also co-produced)—mixing is still his greatest passion. In that capacity alone, he's worked on songs in the past year by Toni Childs,

Spandau Ballet, Belinda Carlisle, Peter Gabriel (the superb "Big Time" 12-inch), Billy Idol and others.

I caught up with Lord-Alge at Different Fur as he prepared for another day of sessions with Starship, for whom he's producing six tracks. "This is a band in transition," he comments, "a band looking for a new identity [following the departure of Grace Slick]. They're great players, and Mickey Thomas has really got an amazing voice. I think people will be surprised by this record. It's got more of a big R&B feel on the tracks, which is what I do best. I think people may be surprised by this record. I know I'm enjoying it."

As you'll see, this is one enthusiastic guy.

Did you have any impression of what studio life was like before you got involved with it?

No, not at all. When I first started engineering I wondered, "Well, what's the trick here? You can *rewind!*" Obviously I wasn't doing great mixes, but I would have a mix up before a four-minute song was over because I was so used to mixing fast from working in live sound. Half the time when I

was doing live sound we wouldn't have a soundcheck, so I'd have to do everything—a mix and effects—during the first couple of minutes of the first tune. Obviously, as I did more engineering I took more time, but I still work fast.

I'm not a musician, but I'm a listener, so I knew how to hear how a mix should sound, how it should be balanced. Chris [his brother] taught me the physical end of it—the routing, how to deal with effects, how to bounce, that sort of thing. He was a great teacher, and I was able to pick things up pretty quickly.

Was there a specific style of music that influenced how you worked in the studio—some sound that you wanted to emulate?

The stuff that I grew up listening to and that has influenced the way I work is Genesis and Peter Gabriel. I was a fanatical fan of Genesis when Gabriel was in the band, and for a couple of albums after he left, and of Gabriel's solo stuff. Gentle Giant was another group I liked a lot. All those people influenced how I listen to music and the kind of things that I like, even though my stuff is very dif-

Studio and production professionals know...

We don't sell problems We solve them

Announcing Sam Ash Professional

A sales and service organization dedicated to offering the finest selection of pro audio equipment in the country. We invite you to call or visit our show room located in Midtown Manhattan, featuring a fully functional recording suite, as well as several types of workstations for complete demonstration of professional audio technologies. While you are speaking with one of our Creative Consultants, please inquire about our many unique programs such as **Product Evaluation and Extended Service Programs, flexible financing options**, and more designed to guarantee your complete satisfaction.

Sam Ash Professional

723 Seventh Avenue, Third Floor, New York City 212.719.2640 Hours: Monday thru Friday 9:30-5:30

ferent from that. But I liked the spatial relationship between the instruments, the effects they used, the balancing. I tried to emulate some of that, even though I was mainly working on R&B. *You went from being an assistant to engineering sessions on your own. What was that transition like?* Chris had no mercy on me. [Laughs] He threw me into everything he could. I was petrified at first, but that's one way to learn. We'd be in the middle of cutting vocals and Chris would just leave the room; so if I wasn't totally on top of it, we were in trouble. That's one of the things he instilled in me—that an assistant should always be right on top of everything that's going on. I don't think that's usually the case these days, though I've worked with many fine assistants.

So he just kept throwing me in the hot seat, and I had to either perform and do it well or I'd have to go look for another gig. I also assisted some of the other staff engineers at Unique, and sometimes when they'd leave the room I'd do my thing right in front of the client and basically rob the client away. [Laughs]

Chris is really the person most responsible for what I'm doing today. I can't say enough about that. Sometimes I wish it was he who won the Grammy, because he really deserves it. I think he's a better engineer than me, although it's hard to compare because we have different tastes and mix differently. He's on roll right now. He did Eddie Money, Rod Stewart's new single, lots of good stuff.

Can you remember the first time you felt like you made a real contribution to how a record sounded?

Probably OMD's "If You Leave," which was the first record I ever produced. It made it to Number Four.

That came about through Chris, too. Way before "If You Leave," OMD wanted Chris to do a 12-inch of one of their songs, but he was sick that day so he sent me in. I explained who I was and what the situation was, and they only had a day in New York so they gave it a go. It worked out well enough that a couple of months later they asked me to go out to L.A. to produce a song for the soundtrack of *Pretty in Pink*. We recorded it over three days at Larrabee, mixed it the fourth day, and it did great. It was a very exciting way to break into production.

Isn't it hard to get into a rhythm

when you're only cutting one or two songs with a band?

It depends on whether you're producing it or just mixing it. Mixing is cake. I can make as many or as few songs as they want.

Is it weird to do a 12-inch dance mix when another producer has done the single version of a tune?

I love to do 12-inch records, but I can't do them anymore unless they want a 7-inch [single] as well. I want to do the 7-inch because I feel like my mixes are really geared up for radio. I don't think I can turn out club 12-inch's the way Jellybean can. I've made great 12-inch's, but they're not Jellybean 12-inch's, or [John] Potoker 12-inch's, or Keith Cohen 12-inch's. Those guys make really excellent dance records. I don't do that. I make 7-inch's and then extend them, put cool stuff into them. I like to think I

"I'm not a musician, but I'm a listener, so I knew how a mix should sound."

make good radio 12-inch's. Maybe it's a pride thing, but I don't want to be known primarily as a 12-inch remixer.

Don't get me wrong; I think it's a great thing. I love hearing the different versions, and obviously it's a huge challenge as a mixer to do one well. There's a giant market, and it's opened up a lot of new avenues for some tremendously talented people.

What is your responsibility as a mixer on a 12-inch? How are you trying to serve the song?

I'm trying to f— it up as much as I can! [Laughs] I'm extending it, putting breaks in it. I overdub parts on it, maybe change the bass line, add percussion, tear the choruses apart.

It's a cool thing and I started out doing it, but it's not really what I'm into right now. I'll do it, but only if I get the single, too, because that's where my talent lies.

What do you think is the key to a good mix?

A good performance. If it ain't on

tape, you're just polishing a turd. I try really hard to get a great vocal performance, because so much of how a song works is based on the vocal. I learned a lot working with Steve [Winwood], who is obviously a great singer.

Can you talk a little about working with Winwood? It must have been interesting to go into the studio with someone who has made so many records through the years, and who obviously knows what he wants in the studio by now.

He's also engineered and mixed some of his albums, so when I first started working with Steve I was very, very nervous. I grew up listening to his music. I wasn't a huge Traffic fan, but I liked them and I knew their music. I loved Blind Faith, and I've liked some of his solo albums. Who couldn't like *Arc of a Diver*? It was a brilliant record.

I originally got involved with Steve through a very good friend of mine who I'm forever indebted to named Robbie Kilgore. Robbie is one of my favorite New York session keyboard players. He comes up with these incredible, off-the-wall, wacky keyboard parts. Anyway, he was programming keyboards for Steve on the *Back in the High Life* album, and I was still on staff at Unique. Robbie had recommended that they go up to Unique because the studio had all the latest technology and these hot young engineers. So they did end up at Unique and we hit it off.

What stage was the album in at that point?

They had just cut basic tracks with Jason Corsaro, who's a good friend of mine at Power Station. Drum machine, synth bass, some vocals; everything was in its basic form.

Maybe 10% to 20% of what was on the tapes when I started working on it, stayed on it. We redid a lot of it—vocals, some bass parts, and we put on live drums. I worked on that record for eight months. Working with Steve was amazing. We had a great time.

He really knows his way around the studio; he even taught me some things about the SSL I didn't know. He owned one of the first SSLs at his home studio when they came out years ago. In turn, I taught him some things about the SSL, which was cool. I'm not a musician, but the SSL is my instrument.

How did the experience of making Roll With It compare with Back in

GIVE YOUR EMT PLATE A NEW IMAGE

TIMELORD's TL140 board will give your EMT plate a significantly improved SN ratio, a wider, deeper stereo image, more detail, extended high end response, equal left and right decay times.

And it still keeps the smooth EMT character.

Our TL140 will reduce the noise of your EMT plate by 15dB if you are using a tube amp and by 7dB for transistor amps.

Easy installation, just takes 2 to 3 hours.



"TIMELORD's TL140 boards have brought our EMT140 plates into the digital age: the improvement was outstanding. The S/N improved by 16dB, overnight we had 4 new reverbs!" Malcolm Atkins, Manager of Air Studios London

"The TL140 mod has given our EMT plates a new life. The dullness has completely gone. depth has improved dramatically, both channels sound equal and noise is less than any of our digital reverbs" Susumu Mera, Chief engineer of Freedom Studio Tokyo

REMOTE METER FOR EMT PLATES

TIMELORD has manufactured remote meters for the EMT 140/240 plates. Featuring the same scale, impedance, screw fixing centers and escutcheon size.



PRICES TL140 \$125 per channel
Meter \$85

Payment by check or International Money Order
in US currency only.

Time lord

3-5-10, SHINJUKU, ZUSHI-SHI, KANAGAWA
249, JAPAN
PHONE: 0468-73-6226 FAX: 0468-73-5206

Circle #001 on Reader Service Card

Sam Ash[®] MUSIC STORES

PRESENT THE ANNUAL NEW YORK MUSIC

EXPO

Featuring **KEYBOARDS,
MIDI Systems, Computers
& Software, Recording & Sound**

- OVER 60 MAJOR BRANDS EXHIBITING THEIR LATEST MODELS •
- MEET MANUFACTURER'S REPRESENTATIVES & FAMOUS ARTISTS
- TRY THE EQUIPMENT • PICK UP CATALOGS • ASK QUESTIONS

**Many Special Deals and Prices at the Show
Bring Cash, Check or Credit Cards!**

SATURDAY, MAY 20

11:00 A.M.—7:00 P.M.

SUNDAY, MAY 21

NOON—6:00 P.M.

TECHNICAL CAREER INSTITUTES

320 WEST 31st ST. (at 8th Ave.), NEW YORK CITY
NEAR MADISON SQUARE GARDEN/PENN STATION
FOR INFO CALL SAM ASH • (718) 347-7757

ADMISSION \$5 PER DAY

©1989 Sam Ash Music Corp.

Circle #002 on Reader Service Card

the High Life?

It was much easier all the way around. For one thing, I produced *Roll With It*, whereas Russ Titelman worked on *Back in the High Life*. But it was also the difference between spending eight months on something, and only 15 weeks, which is how long *Roll With It* took from blank tape to final mix. We didn't want to spend a lot of time mulling everything over. We wanted to come up with great performances and get them on tape. Steve had the songs already written, which is always a big help, and then he got the majority of the vocals on the first take. He works well that way, because on that first take he's not thinking, he's just singing.

Did you and Steve feel any pressure trying to follow up Back in the High Life?

Nope. We were very comfortable. We never felt like we had to put out a certain kind of record. We didn't think we had to come out with *Back in the High Life, Part Two*, and I don't think we did. This record shows a different side of Steve. We went back to the roots with "Roll With It." Yeah, that's real close to some other songs, but that's Winwood, man. Those *other* songs are Winwood. We had the Hammond organ and piano and live drums, the Memphis Horns—that's Steve. We had a lot of fun with that song.

"See What the Night Can Do" is probably my favorite song on the album. I'm sure there's quite a population of people who don't like that song because of the beer sponsorship thing, but I really don't give a shit what people think of that. It's a seven-minute song, and Steve didn't write it for Michelob—they came into the studio after we'd already worked out the song. Steve's taken a lot of shit for that, and I think it's unfair. It's too bad, because it really is one of the standouts on the album, in my opinion, yet people are blind to it. The atmosphere on that song is so great. It came out exactly as we envisioned it. *Do you have a regimen in the studio? Are there certain ways you like to approach a project?*

How I like to work when I'm producing and cutting basic tracks is—depending on the song—first, program it with a drum machine and a sequencer, or a Fairlight or whatever. Program the basic parts—drums, a

bass line, a couple of keyboard pads — into the computer, and then manipulate the arrangement to make it as good as possible. When you do it that way it's easier to hear how you might change things. You can say, "Let's move this here, and we'll add a few beats there. Take this bar out." When that's done I'll print that, put a guide vocal down, lay some other parts down. Then what I've been doing is—like with *High Life* and *Roll With It*—overdub a lot of things to the drum machine track and then, as you get to the end of the album, bring in the live drums to get that human feel, swing it a little. John Robinson, who we worked with on those records, worked out perfectly. He's phenomenal. Steve played the drums on "Roll With It."

You've been doing a lot of your work at Hit Factory [in Manhattan]. What is it about the studio that you like so much?

I feel very comfortable there. The rooms are good, there are no disruptions and everything works. The monitors sound good and everything is set up nicely. It's a sterling studio. But I like any studio that runs efficiently. I get *very* upset when I'm in a studio

and stuff doesn't work. I can't tolerate maintenance problems. Studios can't have shoddy maintenance and expect business.

You seem like a pretty intense guy. Are you very demanding of the artists you work with?

I'm demanding, sure. I guess I have a pretty strong personality in the con-

"I get very upset when I'm in a studio and stuff doesn't work. I can't tolerate maintenance problems."

trol room. There are certain things I like to hear, and I know how to get the sound I want. I'll tell an artist if I disagree and why. At the same time, though, it's not just my session. I try to keep the vibe happening. I don't put pressure on the artist. I'm flexi-

ble. Usually, when I have musicians come in I let them do their thing and see what they want to play for a part, because you usually get a better performance than if you're just telling them what you want.

Always have the machine in "record." That's my motto. Because you get some of the best stuff that way. As long as you have an open track keep it in "record." We're in the recording business! Any time there are musicians in there screwing around, or singers warming up, or whatever, you should be recording. 'Cause if it ain't on tape, it ain't there.

Have you had happy accidents that way?

All the time. Every record. *Yesterday* we had one. Someone was just fooling around and came up with a great part. And we got it on tape.

Do you know the song "Valerie" on [Winwood's] *Chronicle*? The intro starts out with a tom fill, which is really cool, and it's something nobody would play if they sat down and thought about it. How that came about was I had just rewrapped the tape, I put it in "record" automatically, and Steve was just messing around on drums; not playing in time or anything. Well,

don't forget your lunch!

THE 512b MIC PRE:

The new API 512b—An all discrete EQ size mic preamp/instrument direct box in one.

THE 550b EQ:

The new API 550b—The same circuit as the famous all discrete 550A, but with four bands and more frequencies.

THE 500-b4:

The new API 500-b4—A portable rack for API modules, with the traveling engineer or musician in mind.



api

WORLDWIDE DEALER/REPRESENTATIVES:

EAST COAST:

STUDIO CONSULTANTS, INC. 212-586-7376

WEST COAST:

EVERYTHING AUDIO 818-842-4175

WESTLAKE AUDIO 213-851-9800

MID-US:

MILAM AUDIO 309-346-3161

EUROPE:

SYCO SYSTEMS (LONDON) 01-724-2451

JAPAN:

NISSHO IWA (NY) 212-704-6692

api audio products, inc.

7951 TWIST LANE,
SPRINGFIELD, VA, 22153
703-455-8188 FAX 703-455-4240

Circle #003 on Reader Service Card

by George Petersen

HEARING IS BELIEVING

WHITE CROW'S CUE MIXING SYSTEM

W

hether I'm engineering, producing or performing, there's no aspect of studio recording that I hate more than setting up monitor mixes. The entire process just isn't any fun. In fact, it can be downright tedious when working with four or more musicians, especially when dealing with complex or-

tive solution to this dilemma. Simply named the "White Crow Audio Artist Cue System," it features five roll-around mixing stations that offer personal control of individual headphone mixes. The beauty of the system lies in its use of standard, off-the-shelf components: each station utilizes a



Kilimanjaro, in session, checks out White Crow's artist-controlled cue system.

chestrations. The bottom line is that artists perform better when they can hear themselves and other tracks in proper balance. Unfortunately, achieving this goal is a time-consuming procedure that usually takes place at the beginning of a session, when musicians are fresh and eager to perform.

White Crow Audio, a 24-track, Neve/Studer-equipped studio in Burlington, Vermont, has come up with an innova-

Roland M-160 16-channel stereo line mixer, an Alesis Microverb, a Furman PL-8 power conditioner/light module and a Crown D-75 amp. Besides delivering plenty of headroom for cue listening, the D-75 can also drive a pair of small speakers for certain monitor applications.

The only hardware modification consists of removing the knobs from three of the mixers' four sends and

covering these with a numbered plate (see Fig. 1). This greatly simplifies the operation of each station. The artist has full control of the sends and returns from the Microverb, while the remaining effects returns are fed from two control room effects buses and a talkback line. Thus, artists can quickly set up a mix to suit their needs, while a "communicate" button at the top of each station routes a hanging studio mic to the control room monitors for two-way communication.

The mixers' 16 input buses originate at the console patch bay, with each station interconnected in a daisy chain arrangement using highly flexible, 24-pair Mogami snake cable with 156-pin Cannon DL connectors. The audio sources to the buses can be anything accessible at the patch bay, such as individual tape tracks, console inputs or subgroup outs. In overdub mode, these buses can be fed from post-fader, direct console outs: once the engineer sets up a working mix at the console, the artist gets a usable starting mix by merely setting all the M-160's faders at unity gain. From that point, the artist needs only to make a few subtle changes to achieve the desired cue mix.

The system was designed by Todd Lockwood, White Crow's owner and



PHOTO: TODD LOCKWOOD

chief engineer, who notes that client response to the system has been overwhelmingly positive. "It tends to spoil people," Lockwood explains. "Everybody likes to get their own sound, and it really influences the musician, who can go for a big sound in the way he or she personally perceives the song. With the individual reverbs, if a singer wants to hear a huge, cavernous sound around the vocal, then the other musicians don't have to listen to that. The usual reaction is 'Why

Figure 1: Cue mix station front panel. Below left: The cue system is fed from the patch bay and any aux buses from White Crow's Neve 8068 MkII console.

haven't we seen this in other studios? "

Lockwood admits that the idea of assembling a custom cue system wasn't entirely original. "I had heard of other studios developing their own active cue systems," he concedes, "but the two studios I knew about used 8-channel Fostex line mixers, which was the first piece of hardware that made sense for this application. However, going with only eight channels means that you'll have to create several submixes, which can be tricky, especially in tracking mode. As soon as I saw the advertisements for the 16-channel Roland mixer, I knew that it was the solution I needed."

Besides freeing engineers from the mundane but essential chore of cue mixes, the White Crow system also offers the benefit of increasing session efficiency. "While the artists are setting up their sound in the studio, the engineer and producer can be doing more important things in the control room," adds Lockwood. "We're spending more time making *music*. It's a much better use of time, and everyone's happier as a result."



PHOTO: ERIK BORG

by Iain Blair

MIDGE URE

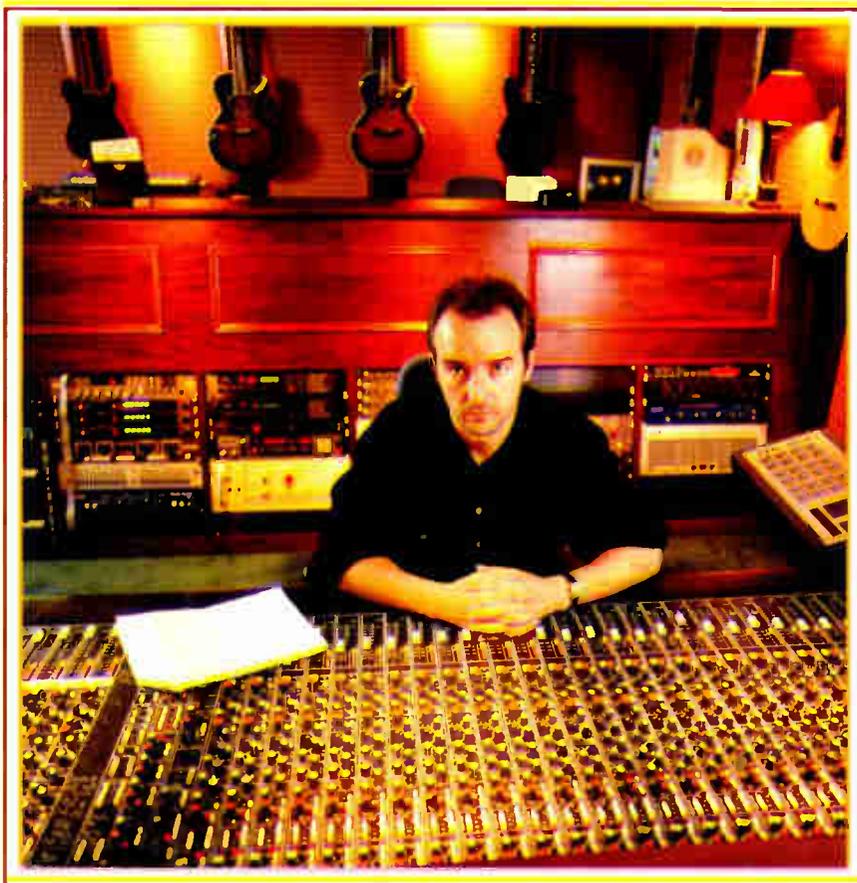
THE HIT MACHINE AT HOME

Here's a quick music quiz. Who's had more hit singles on the UK charts during the '80s than any other artist? If you named Phil Collins, you were almost right. But the correct answer is Midge Ure.

Starting with "Sleepwalk" by Ultravox in 1980, Ure has scored more than 30 hits, either with groups like Visage

ing. Released on Chrysalis Records, the album was a year in the making and features guest appearances from the likes of Kate Bush, UB40's Robin and Ali Campbell, Level 42's Mark King, Big Country's Mark Bzrzecki and Robbie Kilgore.

Recorded at his new home studio, *Answers to Nothing* was mixed by Bob



Midge in his home studio.

and Ultravox, or as a solo artist. They include his Number One hit in 1985, "If I Was," and "Do They Know It's Christmas?" (which he co-wrote for Band Aid), the biggest-selling single ever in Britain.

It now looks certain that Ure will add to his total with the release of his second solo album, *Answers to Noth-*

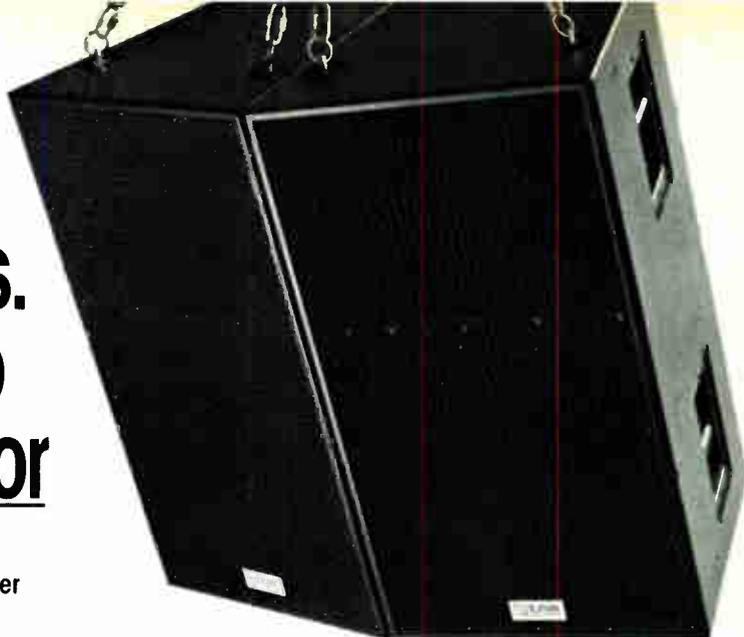
Clearmountain, Bryan Adams' celebrated producer who is also engineer to David Bowie, Peter Gabriel and Bruce Springsteen.

Mix: Are you pleased with the album?

Ure: Totally. I really consider this my first proper solo album, even though *The Gift*, which was released four

“No one can repeal the laws of physics. The challenge is to make them work for you.”

KENTON FORSYTHE
Director of Engineering; Co-Founder



Case in point: The KF600, EAW's newest system for performance applications. It measures just 33" high and 19 3/4" on a side. Yet KF600s produce 130 dB, averaged from 65 Hz — 20 kHz.

A principal factor behind that small miracle is our unique Transverse Geometry™ low frequency

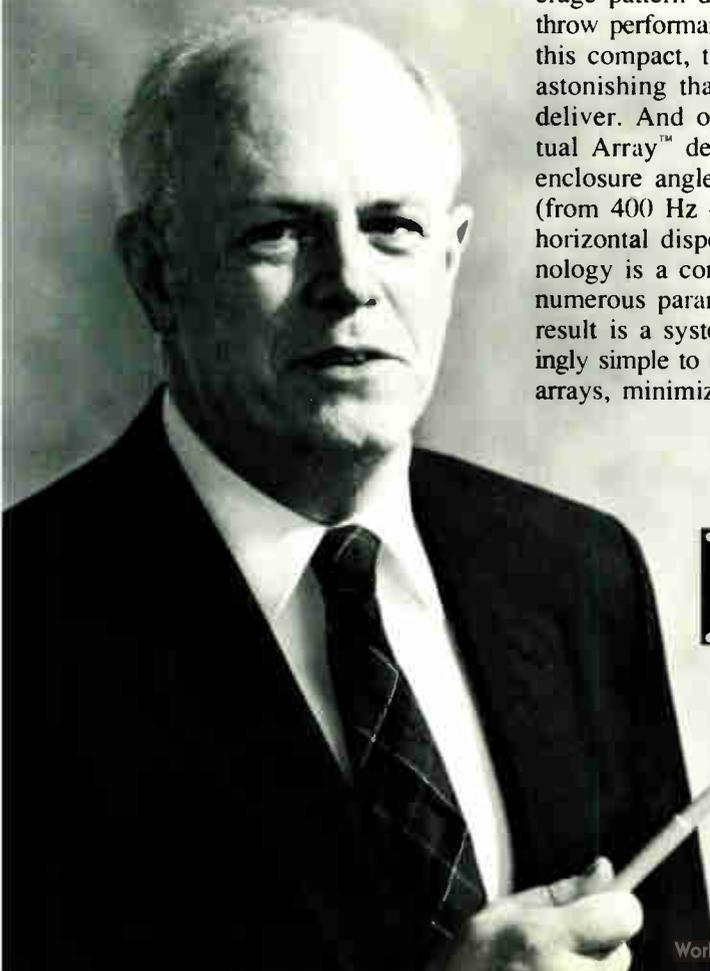
subsection. In this ingenious example of physics at work, the woofer faces *sideways*. Yet its entire output is frontally focused. The design uses dual chambers (one tuned, the other acoustically open) to accomplish this acoustic rotation while maintaining high woofer efficiency.

At 15 feet, KF600s sound impressive. At 150 feet, they're simply amazing. A 60° horizontal coverage pattern delivers true long throw performance. From speakers this compact, that's even more astonishing than the SPLs they deliver. And our exclusive Virtual Array™ design matches the enclosure angles to that constant (from 400 Hz — 20 kHz) 60° horizontal dispersion. VA™ technology is a complex balance of numerous parameters. But the result is a system that's amazingly simple to use. With KF600 arrays, minimizing interference

and eliminating lobing or hot spots is virtually automatic.

We're known for innovative enclosures, but we also know the value of electronics. So we've developed KF600 modules for our MX800 Closely Coupled Electronic Processor™. The MX800 provides four-way asymmetrical crossovers, time/phase compensation, individual driver protection and high frequency power response equalization, along with LF excursion control and equalization. All functions are precisely adjusted — through TEF™ analysis and real world testing — for optimum effectiveness.

If you have an application that demands unlimited sonic performance while providing limited space and setup time, audition KF600s. You may have a little trouble believing your own ears — most people do. But what you'll hear is real: No magic, just the laws of physics, artfully applied.



MX800 CCEProcessor — an integral part of the KF600 system.

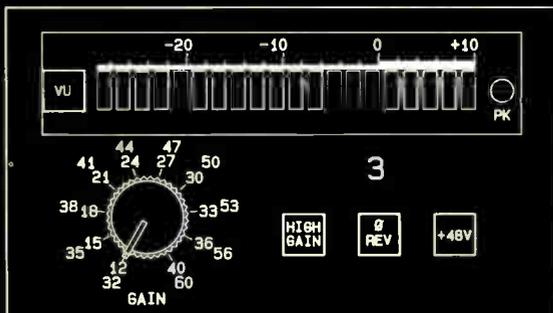
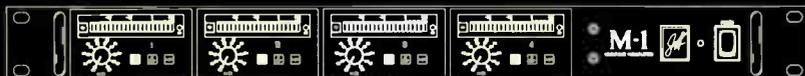


One Main Street, Whitinsville, MA 01588
(508) 234-6158 • (800) 992-5013 • Fax (508) 234-8251

M-1

MICROPHONE PREAMPLIFIER

SUPERIOR SOUND QUALITY. RE-DISCOVER YOUR MICROPHONES!



(ACTUAL SIZE)

- THE BEST JENSEN INPUT TRANSFORMER: THE JE-16-B.
- THE BEST OP-AMP: THE 990 DISCRETE OP-AMP.
- DC-SERVO ELIMINATES ALL COUPLING CAPACITORS.
- THE BEST JENSEN OUTPUT TRANSFORMER OPTION: THE JE-11-BM.

- ILLUMINATED SWITCH BUTTONS.
- TOROIDAL POWER TRANSFORMER.
- UNIVERSAL POWER SUPPLY.



- XLR CONNECTORS. GOLD OPTIONAL.
- TWO METER OPTIONS. VU-1 SHOWN.
- CUSTOM KNOB & PUSH BUTTONS.

THE JOHN HARDY COMPANY

P.O. Box AA631
Evanston, IL 60204

(312) 864-8060

Telex: 910-380-4670
(JOHN HARDY CO)

Circle #013 on Reader Service Card

"I really consider this my first proper solo album, even though *The Gift* did well."

home studio for the last six years, so I basically moved a lot of the gear over and redesigned the space with my regular engineer, Rik Walton.

Mix: What sort of setup do you have?

Ure: I'm using the same board, a Harrison M-3, that I originally bought because it's so compact. I also really like the sound, which is very warm. Then I track on a 24-track Studer, which is excellent. It's a big, reliable workhorse. For monitors I use a British brand called Wellard. They're mid-range with built-in power amps. I first heard about them from Phil Collins and the guys in Genesis, and I know that U2's studio in Dublin also uses them. I've used UREIs but they were far too big for my new place.

Mix: What about mics?

Ure: I have a pretty standard selection of Neumann, AKG and Sennheiser mics. Interestingly, I thought we'd

The sound of the future is here today.

OMNIMUSIC
PRODUCTION MUSIC LIBRARY

52 MAIN STREET, PORT WASHINGTON, NY 11050

1-800-828-OMNI
516-883-0121 (N.Y.S.)



The MIDI Studio at Manny's.

Manny's didn't get to have the most respected pro audio division by living in the past.

Music technology is changing faster than ever. To keep on top of it, you need a reliable source of knowledge as well as equipment. At Manny's, we supply both. Which is why producers, engineers, and top recording artists have been coming to Manny's for decades.

Each department at Manny's is a store within a store. With the latest innovations in music and recording. A complete line of products. And just about any part or accessory you can think of. From MIDI to multitrack, from digital recording

to live sound, Manny's has it all — and at competitive prices.

But what really sets us apart from any other store is our people. Every staff member is an expert in their field, with up-to-the-minute knowledge as well as hands-on experience. Which means at Manny's, you're not only getting the best equipment, you're getting the best advice.

Stop by Manny's at 48th Street, or call us at (212) 819-0576. And find out what the future of music looks like.

Manny's Music

PROFESSIONAL AUDIO DIVISION

Manny's Music Inc., 156 W. 48th Street, New York City, N.Y. 10036
(212) 819-0576 FAX: (212) 391-9250.

RECORDING EQUIPMENT

—All Major Brands—

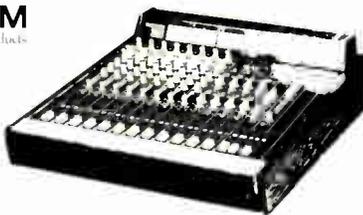


FOR STUDIOS/HOMES CHURCHES/CLUBS

- Reel to Reel Decks (2-4-8-16 Track)
- Cassette Decks • Mixing Boards
- Mikes • Studio Monitor Speakers
- Special Effects Units Accessories

TASCAM
TASC Production Products

- VOLUME DEALER
- NEW & USED
- E-Z TERMS
- ALL MAJOR CREDIT CARDS
- PROFESSIONAL ADVICE



Call for a catalog and pricing information.

RHYTHM CITY

287 East Paces Ferry Road N.E.
Atlanta, Georgia 30305
1-404-237-9552 • 1-404-237-8526
CALL TOLL-FREE IN GA 1-800-282-7995

Circle #011 on Reader Service Card

ARTIST'S · STUDIO

D.I. the whole album, but we ended up recording all the drums live in the studio and miking them up.

Mix: Do you have a large selection of keyboards and synthesizers?

Ure: It's pretty extensive. I have a specially built plinth to house everything in. All the outboard gear is on the engineer's side, including Yamaha REV5s and 7s, Yamaha SPX90 multi-effects units, a Roland 3000 digital delay unit—we have four of them—and an EMT digital reverb unit. All the keyboards are mounted on the other side, including a Korg M1, a Roland D-50, an Emulator II Plus, a Technics digital piano and some rack keyboards such as a Roland D-110 multi-effects, four Yamaha TX81Zs, an old Yamaha string machine, which I never use now because it sounds too close to the Ultravox sound, and a PPG Wave 2.3.

Mix: Are you a tech-head?

"I spent the first three months just getting used to the new studio."

Ure: I'm not obsessive like some people, but I am pretty interested. And when you own a studio, you have to be on top of what's happening to update your equipment. So I'm always reading about new gear and talking to friends. I hate reading manuals, though. I let the engineer do all that.

Mix: Can you run the studio on your own?

Ure: Yes, I know my way around. I've always been into recording methods, and when I first started playing in groups I liked to make demos on a 4-track machine. Over the years I've watched and listened and picked up how to engineer, though most engineers aren't too keen to share their secrets! So I'm quite happy going in on my own and just experimenting with sounds and ideas.

Mix: Did you make a lot of demos for this album?

Ure: No. I went and bought an Atari 1040ST music computer along with some music sequencer software. Bas-

"Best New Music Software"
—Mix 1/89

"It's really a wonderful piece of software and the customer support has been terrific."

John Mahoney, Studio Room Manager,
Atlantic Records

Archie™

Studio Management System for the Macintosh

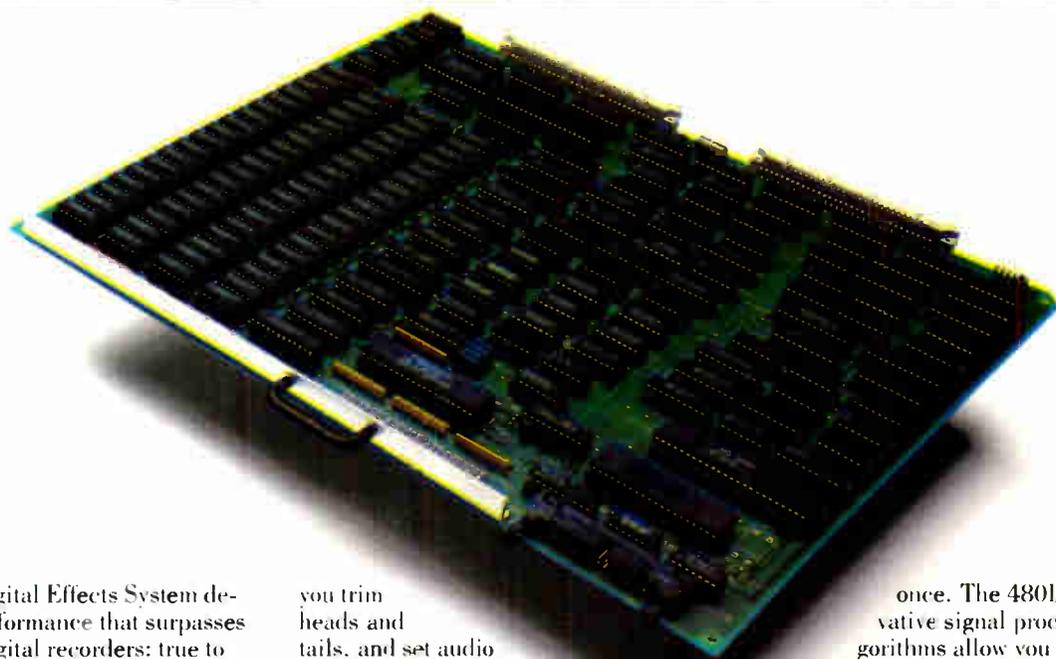
- Automates studio operations
- Creates instant timesheets
- "Intelligent" tracksheets
- Tracks clients, inventory, payables and receivables, master tape library, checkbook
- Automatically prepares invoices, statements
- Prints checks, reports, forms and more!

For more information: Words & Deeds, Inc. 4480 Sunnycrest Drive
Los Angeles, CA 90065 Tel: 213-255-2887

Circle #012 on Reader Service Card

EXPANDING THE SYSTEM

*The 480L Sampling Memory Expander. Accurate sampling in phase-locked stereo:
a Lexicon applications brief.*



The 480L Digital Effects System delivers audio performance that surpasses conventional digital recorders: true to life sampling is a prime example of its advanced engineering. With the optional Sampling Memory Expander, the 480L becomes an astonishingly practical way to copy or move several seconds of audio from point A to points B and C.

Until now, "flying in" or "slipping" vocal and instrumental overdubs meant tradeoffs. Two-track tape is clumsy and degrades the signal: DDLs with long memories are better, but not by much. Now, with the 480L's optional Sampling Memory Expander, you can digitally record 10 seconds of true phase-locked stereo or 20 seconds of mono at a 48 kHz sampling rate. 18 bit equivalent A/D conversion produces a typical dynamic range of 98 dB, with a bandwidth of 20 - 20,000 Hz; output doesn't get any closer to input.

If you're using a digital recorder that's Sony 1610 compatible, the Sampling Memory Expander and the 480L's digital I/O interface can reproduce the original performance at any location on tape without leaving the digital domain. Slip syncing, copying and time shifting of audio segments is faster and cleaner than ever before.

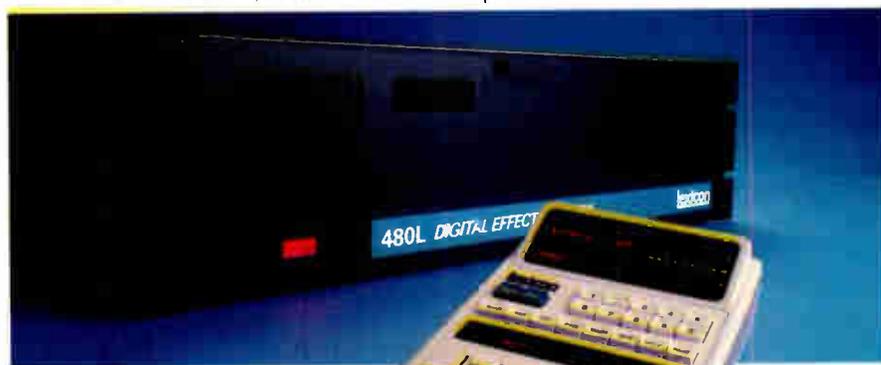
You control sample recording, editing, processing and triggering from your work position using the 480L LARC. Varying up to six parameters at once,

you trim heads and tails, and set audio trigger levels. Audio trigger response time, incidentally, is under 300 microseconds — virtually instantaneous. Sampling Memory Expander enhancements include Record Trigger to trigger sampling automatically from audio input, Time Variant Record, and sound on sound digital recording in sync with the original sample. Lexicon Dynamic MIDI[®] lets you assign MIDI controllers to sampling parameters, for new dimensions of real-time or sequenced control.

Sometimes even the most accurate replica isn't exactly what you're looking for: if so, the 480L will take you beyond imitation into creative sampling. Play samples faster or slower (without changing the sampling rate), backwards or forwards, even both at

once. The 480L's innovative signal processing algorithms allow you to enhance sounds with advanced reverbs and effects without leaving the digital domain. Add signal processing as you sample, or process a "dry" sample on playback with digital wet-dry mixing.

The 480L digitally integrates sampling and signal processing because it's designed as a comprehensive audio production tool: a system. And sampling is only the first of many directions in which this Digital Effects System can grow. We're continually examining the possibilities, and as your needs develop we'll implement new tools to meet them. Now is the time to call your Lexicon Advanced Products dealer for a demo of the new production techniques the Sampling Memory Expander makes possible.



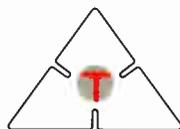
lexicon

Lexicon Inc., 100 Beaver Street, Waltham, MA 02151 (617) 891-6790

THEY DON'T GET IT



Each year various makers flatter us by copying features we pioneered. But try as they may, no one has been able to copy the most important feature of all – the Trident sound. While others mumble theories and peer into scopes, we listen. We tune each design like a fine instrument, to generate the critical warmth necessary for musicality. So whether you choose the Trident 16 or 24, fully loaded or short loaded for future expansion, with or without our superb patchbay, you can be sure of one thing – Nothing sounds like a Trident because nothing is designed like a Trident.



TRIDENT

ically it's a recording sequencer that allows you to put down all the keyboard and drum parts and feed them into the computer without having to commit anything to tape. One great advantage is that you don't have to use up all your tracks. Another is that you don't have to commit to your synthesizer sounds. I ended up doing most of the basic writing on this computer system, then putting down the tracks on tape and then layering in everything else. In fact, the entire album was written from scratch in the studio.

Mix: Did you employ any special recording techniques for this album?

Ure: I think the way we recorded the drums was the most unusual thing about the album. As my studio is just one big control room, we couldn't hear what Mark Bzrzecki was doing through the monitors because the drums were so loud; so we'd just record and then adjust the EQ and gradually get it that way. It was Mark's idea. I'd just planned to do the traditional thing and tape the drums in another studio, but this worked out really well. The rest of the tracks were generally D.I.'d because we couldn't set up amps in the room and blast away. So we used preamps instead, which can sound just like a Marshall stack. I'd never used valve preamps before, and I was impressed with their performance.

Mix: Bob Clearmountain mixed. How did that come about?

Ure: We'd originally met through Bob Geldof after Band Aid, and we'd talked about doing something together, so it was the right moment. He came in and recorded all my vocals at AIR Montserrat and then mixed the rest there. We did the whole thing in just two weeks.

Mix: Do you like Montserrat for mixing?

Ure: Not really. I think the monitors are too hard and too bright, but it's a great studio. It's 64-track digital now, with Mitsubishi machines and an SSL board. I'd originally recorded all the drums and guitars on the Studer analog machine, then transferred them to the Mitsubishi 32-track and then added all the keyboard parts. ■

Iain Blair is a Southern California-based writer who contributes regularly to Mix and other publications.



Half-rack. All Symetrix.

The SX200 Series



SX201
Parametric Equalizer/Preamplifier



SX202
Dual Microphone Preamplifier



SX203
Telephone Interface



SX204
Four Channel Headphone Amplifier

The Symetrix reputation for *reliability, versatility* and *ease of operation* continues in the SX200 Series. Backed by *fourteen years* of signal processing experience, Symetrix offers this solid approach to the half-rack format. Watch in '89 for the introduction of new SX200 Series products, which include the SX205 PRECISION AUDIO METER and the SX206 MULTI-DYNAMICS PROCESSOR.

Symetrix

4211 24th Ave. W., Seattle, WA 98199, USA
TEL. (206) 282-2555
FAX. (206) 283-5504

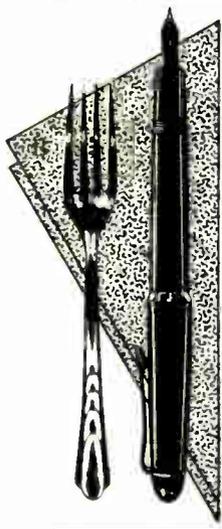
Signal processing at its best

In Canada call S.F. Marketing
(514) 733-5344

by Mr. Bonzai

BILL PORTER

COOKIN' WITH CLASS



Before the days of overdubs and sophisticated reprocessing, the recording engineer was a chef who carefully prepared all the ingredients, mixed well and then *cooked*. Imagine the pressure of working with Roy Orbison or Elvis Presley in a room full of drums, guitars, pianos, strings and horns, cutting three songs a session, live.

Bill Porter walked into his first session in March 1959 and had his first Number One record in August of that year. As new devices came to the market, he added them to his spice rack and cooked up sounds that had never been heard before. During one week in August 1960, he had 15 records in the Billboard Top 100. In addition to engineering hits for Orbison, Elvis and the Everly Brothers, Porter was the man behind classics like Floyd Cramer's "Last Date," Skeeter Davis' "The End of the World," Jim Reeves' "He'll Have to Go," Tommy Roe's "Sheila" and Johnny Tillotson's "Poetry in Motion." Within a few years he made 300 chart records, 57 Top 10 hits and 37 gold records. Porter was a master chef working at the pace of a short-order cook.

In 1975, while still touring three months a year with Elvis, Porter took his experience to the University of Miami and helped create the world's first four-year degree course in music engineering. Today he is sharing his knowledge at the University of Colorado at Denver College of Music.

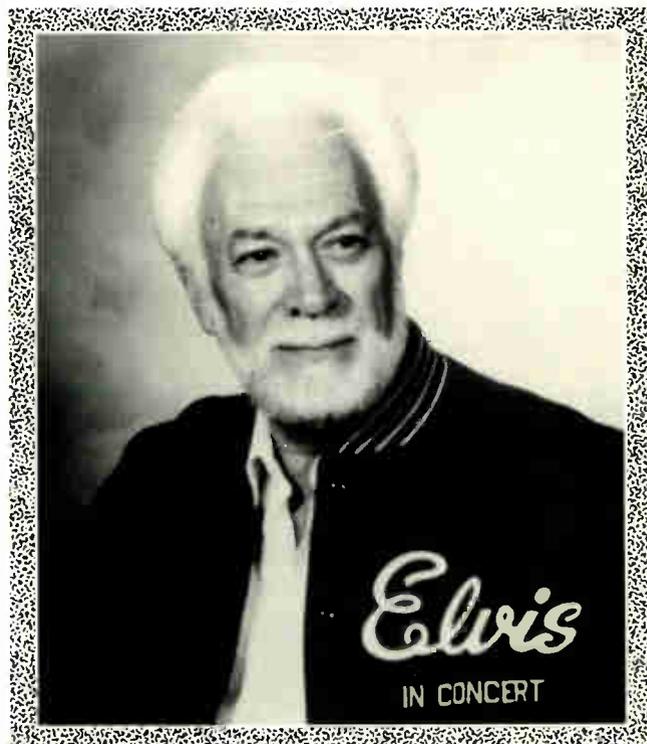
Bonzai: When you were young did you have any inkling that you would pursue a life in audio?

Porter: Not really, but as a teenager I carried a portable radio with me wherever I went, and the portable radios in the '40s weren't very portable—tubes and big batteries. I even used to strap one to my bike so I could listen while I was riding around Nashville.

Bonzai: What was your favorite music?

Porter: I was really into the big bands. I got a job fixing television sets and always listened to the radio while I was working. When I finished high school, I applied for a job as a cameraman at a new TV station. I thought that I'd be in the production department, but I was put in engineering and helped put WLAC-TV on the air in 1954. Since I was low man on the totem pole, the chief engineer told me I was doing audio because nobody else wanted to.

I fell into it that way, and then started liking it. Within a year I was the top audio man—but only because I



watched all the network shows and studied the mic placement and listened carefully to the audio. There were no books around, so I was self-taught.

Bonzai: Did you have any audio teachers at all?

Porter: Not in the television days, but when I worked with RCA, Chet Atkins was a big help. He helped me analyze and understand musical balances.

Bonzai: How did you make the jump from a TV station to a recording studio?

Porter: It started in 1959 because one of our engineers had a friend over at RCA recording studios. Chet Atkins, who was in charge, is a very mild-mannered person, but for some reason he had a fight and punched out the engineer. I learned there might be a job opening.

I was interested in studio recording, because I knew the WSM *Grand Ol' Opry* radio engineers were working at Bradley Studios, which later became Columbia. They made \$25 for a three-



Top: At Monument Studio in May 1964 are (L-R): Phil Everly, Don Everly, Sr., unknown, Everly's manager Wesley Rose, Bill Porter, Don Everly and songwriter Boudleaux Bryant. **At left:** Chet Atkins (left) and Bill Porter in the RCA Studio, Nashville, June 1961.



hour date, which was good money in those days. I tried to get in there, but with no track record there was just no way.

But I was determined, so when I got off work at three in the afternoon, I went to the RCA office every day for two weeks. The girls in the office got tired of seeing me and finally persuaded Chet to come out and talk to me. All he could say was, "Bill, I can't help you because all the hiring is done out of New York."

Some of the local musicians who played on a morning show at the TV station put in a good word for me with Chet. He knew who I was and said he would submit my name to the chief engineer, who was coming to Nashville the next week. The chief didn't come, but they sent an older man, Les Chase, who had been with the company since 1929. During the interview he told me, "Boy, you don't want to get into this business. It's gonna ruin your life, ruin your marriage. You don't know what you're getting into." In a way, he was right. Anyway, I

LUNCHING · WITH · BONZAI

told him I could handle it, and he said that's what everybody says.

A week later the chief engineer, Bill Miltonberg, came down and interviewed a number of people. We had a long conversation, and that afternoon I was hired. My pay went from \$97 a week to \$145—overnight!

Bonzai: Things must have moved pretty quickly for you.

Porter: Yes, they did. I went to work the last day of March '59 and had my first chart record with Don Gibson in May. It looked so nice to see "Lonesome Old House" on the charts. I thought, "Wow, I've arrived—this is the life!" My first million seller came that fall—"Three Bells" by The Browns.

I ate it up night and day. I ran into trouble with the union, because they had a limit on the number of hours you could work and I was always in violation. I had so much harassment when I turned in my hours I just gave up and didn't turn in my overtime hours. Based on a 40-hour week, I worked a full year by the first of August.

Bonzai: Let's talk about an artist that many people are thinking about late-

ly—Roy Orbison.

Porter: Well, I started recording Roy later that same year. Chet hired him and we did a country date. One of the tunes was called "Paper Boy" and the other side was "With the Bug." For some reason, RCA didn't release it. Wesley Rose of Acuff-Rose Publishing was Roy's manager, and he got together with the producer, Fred Foster. Fred bought the contract, but he didn't like those recordings.

About a month later we did the same songs, but this time they were for Monument Records. I've been told we made the charts some place, but I couldn't find it. Then Fred decided he wanted to try something different with Roy. The next session had strings, and we started doing production-type numbers. The first release was "Uptown."

If you listen to it closely, you'll notice that it's kind of dry on the strings and the vocal. The reason was we only had two echo chambers on a three-output console. RCA didn't send the third echo chamber until three or four months later.

Bonzai: Was this going down on mono tape?

Porter: No, it was 2-track stereo. No overdubbing, just direct to tape.

Bonzai: I read somewhere that the string players came from the local symphony orchestra.

Porter: That's right, and normally we had six players. "Uptown" hit the charts in January 1960 and made it to Number 72. That recording basically started Roy's career. At a session shortly afterwards, he asked Fred and me to come out to the studio. He said he wanted us to hear his new song. So he's playing along with a couple of other guys, and it looked like they were just mouthing the words. Roy says, "That's the sound I want." "What?" I asked. "I don't hear anything."

I walked over and listened again, and the background singers were whispering the words. I thought, "Oh, my God. How am I going to get that on tape?" I asked if the vocals had to be so soft, and he said yes.

Bonzai: Why do you think he made that decision?

Porter: Well, he must have thought there was a commercial flavor to the breathy sound. It was starting to happen with a few singers back then, and nobody was using big string arrange-

Now ... THIS is a studio!!!

Accoustically designed to provide the most accurate monitoring and sound environment available.

SSL-4000E - 48 track with total recall

SONY-(2) APR 24

SONY-PCM 3202

Pro R-DAT

SONY-PCM 2500

AMS-DMX 1580-

RMX 16

EVENTIDE-Ultra

Harmonizer 3000

PUBLISON-Infernal Machine

90

YAMAHA-REV 1&7, SPX

90ii, DX 7-FDII,

TX802, TX816

LEXICON-224XL, PCM70

LINN-9000 EMU II-1,

SP1200, SP12

Plus much more...

Call for details

**power
play
studios inc.**

38-12 30th. St. Long Island City, N.Y. 11101 • (718) 729-1780 • (718) 729-9609

Circle #018 on Reader Service Card

ments with soft voices.

Bonzai: Understandable—a difficult sound to record live.

Porter: You better believe it. My normal mixing procedure was like a pyramid. Rhythm section first, then guitars, horns, strings, vocal group and the featured artist on top. You get the right balance, and then you record. I knew it wouldn't work with Roy's background singers, because if I opened up the mic, the whole room would pour in. So I worked backwards, starting with those soft vocals, and leaned on them hard to get as close to the mic as possible.

Bonzai: What mic did you use?

Porter: A Neumann U48. I used the background voices as my platform and mixed down from there, instead of mixing up toward the vocal. The song was "Only the Lonely," and it really established the sound. I also used some slap echo on Orbison's voice, because he sounded a little thin to me. Today, of course, you've got image broadeners, and you can fatten a voice up in the mix. I took a slap back from the 3-track machine, with his voice on one track, and fed it back into the console with a slight repetitive echo. If you increased it, it would get into total oscillation, but I added just enough to fatten up his voice. You can hear the decay just a little bit at times. When his voice got stronger I used this less and less, and by the end of our sessions I didn't use it at all.

Bonzai: Did you spend a lot of time working these things out with Roy?

Porter: No. In fact, there was very little talking. Even Fred Foster and I had a nearly wordless relationship. I tried things and he would listen and usually we used 'em. I don't think anybody was really aware of what I was doing. I didn't discuss it with Orbison. He didn't come in the control room, but we did talk from time to time. I liked Roy. He was a very nice guy, a wholesome-type person. I don't think he really understood the technical end of it, and he didn't question what Fred and I were doing. He must have liked my work, though, because he promised to buy me a steak dinner once. We never got around to it.

Bonzai: Did you stay in touch with him over the years?

Porter: No, not really. He left Monument Records and the hits stopped coming. The whole production team went different ways. Fred wasn't there; I wasn't there.

VACUUM TUBE SIGNAL PROCESSING AT ITS FINEST



• TUBE LEVELING AMPLIFIER
TLA-100A



• DUAL PROGRAM EQUALIZER
EQP-200

• DUAL CHANNEL
PREAMPLIFIER
TPA-200



• DUAL CHANNEL
-10db to 4db
PREAMPLIFIER
WI-200



Summit Audio Inc.

P.O. Box 1678, Los Gatos, California 95031 U.S.A.
408-395-2448 FAX: 408-395-1403

Circle #019 on Reader Service Card

Educate Yourself

W I T H T H E
July Mix

Audio Education

Southwest U.S. Recording

Digital Recording Update

Complete recording schools and Southwest studios directories, along with special features on "Testing the Limits of DAT" and "Recording of 'The Abyss.'"

Your July *Mix*—hot fun in the summertime!

Ad Closing: May 8
Materials Due: May 15

Apply Yourself

W I T H T H E
August Mix

Facility Design & Acoustics

TEC Nominations Ballot

Studio Monitors

Includes directories of studio designers, acoustical consultants, equipment suppliers and installers; and a console automation primer by George Massenburg.

It's back inside the studio in August—with *Mix*!

Ad Closing: June 8
Materials Due: June 15

IF YOU'RE
NOT USING
IT....
SELL
IT!

THE BERTECH ORGANIZATION
YOUR NATIONAL CLEARINGHOUSE
FOR FINE USED AUDIO AND VIDEO

Our mailers reach thousands of professionals every month. We'll list your used equipment free of charge — or help you find that rare item you've been looking for.

THE BERTECH ORGANIZATION
Distributors, brokers and custom fabricators of quality audio and video equipment

14447 CALIFA STREET
VAN NUYS, CA 91401
(818) 909-0262
Toll Free Outside CA
(800) 992-2272

THINK BERTECH FIRST!

Circle #021 on Reader Service Card

LUNCHING · WITH · BONZAI

Bonzai: In the old days, engineers were unsung heroes...

Porter: We were the blue-collar workers of the entertainment industry.

Bonzai: Do you ever feel bad about that?

Porter: I feel slighted sometimes, yeah. If what I did then was applied to today's world, I could have retired as a millionaire. But you don't make records today like you did then, so it's probably an unfair comparison.

Bonzai: Let's talk about some of the other artists you worked with. You cut many major hits for the Everly Brothers.

Porter: Those guys were hard to work with. They always wanted a little more than technology was able to deliver at the time. They had good ideas, but it was a distinct challenge. They really wanted overdubbing before we had the technology to do it.

Bonzai: "Cathy's Clown" was one of my favorites...

Porter: In a sense, I was producing those sessions, and I added something new to that song. We had just gotten a tape loop in from RCA, one of those machines that run about 120 ips, with a bunch of different delay times. It was about two-and-a-half feet high and fit in a standard 19-inch rack. Of course, whenever we got something new I would experiment. For "Cathy's Clown," the drummer was playing kind of a circus effect. I wanted to exaggerate that, so I asked Wesley Rose, the producer—and I use the word loosely, 'cause he mostly just timed the songs—if I could try something on the drums. I adjusted the tape loop, and if you listen, it sounds like there are three or four drummers. There are drums everywhere. I put it on live while recording—switched it off during the verses and back on during the bridges. That was the biggest hit they ever had, Number One in the U.S. and Britain at the same time.

A few years ago, back in 1986, my son's girlfriend met them at her boutique shop in Las Vegas, and they joked, "Where is Bill? We haven't had a hit since he left!" Anyway, they flew me into Las Vegas for their show, which included a lot of the hits I had recorded. They turned the house lights on, introduced me to the audience and said, "If this man hadn't taken the time to listen to a couple of young punks, we wouldn't be where

we are today." It was nice. Today, Ted Stein, one of my former students from the University of Miami, is doing their engineering.

Bonzai: Who are some of the other artists that stand out in your memory?

Porter: Well, let's see. Ann-Margret. I cut the one hit she ever had, "I Just Don't Understand." Bobby Bare, The Browns, Skeeter Davis, Johnny Tillotson, Floyd Cramer.

Bonzai: What about Sue Thompson? "Norman" was such an odd hit.

Porter: Oh, yeah! Wesley Rose had the musicians playing so loud and it was just awful. I didn't like that record at all, but it went to Number Three.

Bonzai: Let's move on to Elvis. You cut his biggest single, right?

Porter: Yep, "It's Now or Never"—9 million.

Bonzai: What was that session like? Can you remember?

Porter: Like it was yesterday. I remem-

"For me, a lot of the excitement is gone, but I don't think we can go back to the old days."

ber he was having trouble getting the ending notes. It was the third song we recorded that night, part of the *Elvis Is Back* album. April 3, 1960, just after he got out of the Army.

Elvis sessions were unique. They were usually booked for 7 o'clock at night. I'd get to the studio about 5:00 p.m., because this was before the days of second engineers, and I did everything. I set up, and Elvis would show up about 8:30. He'd come in, and the guys would all kibbitz and talk about this and that, the Army and girls. He'd go through some karate exercises with his bass player, Bob Moore. Finally, about 9:15 we'd be rolling.

A guy named Freddie Beanstalk, of Hill & Range Publishing, would bring a foot-high stack of 78 rpm reference discs, mostly unreleased songs cut in New York studios. Elvis would listen to them until he heard one he liked. The chord sheets would be passed out, and the musicians would improvise their licks and work on the arrangement for 15 to 20 minutes. Then

A SINGER'S DREAM!

REMOVES VOCALS FROM RECORDS!

Our VOCAL ELIMINATOR can remove most or virtually all of a lead vocal from a standard stereo record and leave most of the background untouched! Record with your voice or perform live with the backgrounds. Used in Professional Performance yet connects easily to a home component stereo system. Not an equalizer! We can prove it works over the phone. Write or call for a free brochure and demo record.

Listen..

Before You Buy!

- Time Delay
- Reverberation
- Crossovers
- Noise Reduction
- Compressor/Limiters
- Expanders
- Spectrum Analyzers
- Parametric EQ

Don't have regrets about paying too much for a lesser product. In demos and comparisons, we'll show you why we're Better! Our Factory Direct sales allow us to produce a Superior product and offer it to you at a Lower price. Call or write for a free full length Demo Album and 24 page brochure.

LT Sound, Dept. MX-9, 7980 LT Parkway
Lithonia, GA 30058 (404) 482-4724
24 HOUR PHONE DEMO LINE: (404) 482-2485

we'd record three or four takes and move on. I edited off the master cut while they rehearsed the next song, so we'd have 'em all on one reel at the end of the session.

On "It's Now or Never," Elvis was having trouble with the ending. He'd hit it flat, or his voice would break. I pushed the talkback button and told him he could just do the ending and I could splice it on. He said, "No, Bill, I'll do it all the way through, or I'm not gonna do it." After a couple more takes, he got it.

By early morning we'd be listening to playbacks until the office staff arrived. I must have played this one back eight times.

Bonzai: So, Elvis had a lot of say in which take was released.

Porter: Yes, he did. But you know, he never came into the control room. I never had any interaction with him. I was told that when he got out of the Army they were unsure of where to go to record. I'd had some Everly hits, and Orbison, and so they decided to come to Nashville.

Bonzai: He called on you in 1969 to mix his live sound in Las Vegas. Had he changed much?

Porter: A little more polished, a little more laid back. By this time I had a studio in Las Vegas, which I took over from Bill Putnam. Elvis' producer, Felton Jarvis, brought an 8-track tape of "Suspicious Minds" to my studio. All the tracks were full, and he wanted to add horns. I told him, "Well, I ain't got but one 8-track tape machine, but we can have the horns play live and mix at the same time." He thought it wouldn't work, but I showed him. We did it twice, once mixed for stereo and once for mono. I made reference dubs and Elvis liked them. Now, the record that has been re-released on CD is not the master with the horns. They would have had to use the 2-track master and decided against it.

He called later and asked if I could help with the live sound for his shows at the International, which later became the Hilton. I told him I had never done live sound in my life. He said I had to know more than the guys who were working at the time, because he couldn't hear himself singing. So I took it over, set up some new stage monitors, redesigned the hotel's sound console and worked with him there, and on the road, until the end. I was changing planes in Boston for our next show when I learned of his

death.

Bonzai: Did you record any of those concerts?

Porter: Yes, I did, but I can't get anybody interested. I'm really upset about that, because there is some material that is just great. RCA says they have plenty of tapes. They said they'd give me \$1,000 for 'em, but I said no way.

Bonzai: Do you own those tapes?

Porter: Well, I do, but I don't. They say if I put 'em out, they'll sue me. They're in mono, but one of those shows has that "Dixie Medley" and sounds better dynamically than anything out. It's phenomenal.

I recorded the entire house mix off the console. There's lots of nice on-stage conversation, too. In one of the shows, he introduces the man he worked for when he was a truck driver.

Bonzai: How did you cut so many hits in such a short period of time?

Porter: I've asked myself that same question. The last Elvis record that I did before I left RCA was the last Number One record he had until I worked on "Suspicious Minds" in '69. So, I guess there is something there. When the Everly Brothers went to L.A., they stopped having hits. I feel that I am blessed with an ability to hear combinations of sounds well, and I seem to know how to put them together to enhance the recording. I know other people have this ability, and to me it seems like a natural gift.

Bonzai: What about the changes brought about by multitracking and layering?

Porter: For me, a lot of the excitement has gone, but I don't think we can go back to the old days. I think there is a combination of old and new that works. Musicians play off each other, and that is what music is about. I don't want people to think that I'm locked into old-fashioned ideas, because I'm not. I can get the sound I want with multitracking. I did a record recently that was recorded in three different studios. Basic tracks in Kentucky, overdubbed strings in Nashville and mixed down at Avalanche in Denver. It's overdub city, everywhere. When I got through mixing, it was taken to Nashville for mastering, and I was told they decided they wouldn't do anything to it; they went directly one-to-one. The mastering engineer said he hadn't heard a tape like that in years. The single, "Praising Him" by Milo Herrick, made it to the Top Five in the gospel charts. It has the same

Sound Effect Libraries

are a pain in the @#!\$\$ without

Professional Librarian

for IBM AT-Compatible PCs

Cataloging Software

- Organize Tapes, Floppies, CDs, DATs, Film
- Search by description, category or example
- Refine searches by format, media, length, project, recordist or library
- View 20 effects on one screen
- Copy selected effects to clipboards & windows
- Print & update cross referenced catalogs
- Use "and" "or" & "not" in complex searches
- Update vocabulary changes throughout library

Version 3.0 Now Available

- Auto-assigns effects to user defined categories
- Convenient user defined pull down menus & keyboard shortcuts
- Online context sensitive help
- Online assistance choosing effect descriptors
- Spelling checker prevents data inconsistency
- Pop-up reference lists assist data entry
- Thesaurus links synonyms when searching
- Allows unlimited length of descriptions
- Optional multi-user L.A.N. version
- Optional spotting & transfer ordering functions simplify sound editing projects

Music Library Organization

An optional enhancement provides an alternate set of screens & printouts tailored to the task of music library management.

Presorted CD Libraries

Spare yourself from tedious typing by using our effect information data on floppy disks: BBC, Sound Ideas, Valentino, DigiEfx, SFX The Library, Dimension, Elektra, Audio Fidelity, Bainbridge, Hanna Barbara and many more.

Controls Sony CDK-006

The optional CDK interface system provides complete control of Sony's 60-disk CD jukebox:

- Fast scan, reverse scan, play select or auto-all
- Cue within 1/10th on second any track or index
- Loop between two points on any track or index

NEW ADDRESS:

Leonardo Software

10378 Holman Avenue • Los Angeles, CA 90024
Phone: (213) 277-5161 • Fax: (213) 827-8578
CompuServe: 72167,3514 • MCI: DSTRUMPELL

Circle #023 on Reader Service Card



Financial Aid Available

Accredited by NATTS

Our Graduates Work

A practical education in audio and video recording arts and sciences for anyone who takes recording seriously.

Institute of Audio-Video Engineering

1831 Hyperion Ave., Hollywood, CA 90027

Call Toll-Free: National 1-800-551-8877

State 1-800-972-1414 Local (213) 666-2380

Telex 910 240-4388 IAVE HLWD

Circle #024 on Reader Service Card

LUNCHING WITH BONZAI

dynamics I had on my older hits. Why? I just hear it that way and put it together. I think that way when I'm laying the tracks down.

I did get into some disagreement with the musicians about the way I was working. I said, "Who's recording this session? Me or you? We're not gonna equalize anything; we're not gonna hype it. We're going to place the microphones in the right place and get the right sound." When they heard what I was doing, they liked it.

Bonzai: Do you have a favorite microphone?

Porter: There are a few I especially like, but one of my favorites is the old Neumann U47 tube microphone. When I used that mic back in Nashville, we had a console with Langevin preamps, which gave an unusual impedance-loading characteristic to the mic. This enhanced the "presence" quality and gave a special sound to countless legendary vocals. I used that mic, and we only had one, for Elvis, Roy, the Everly Brothers and just about every vocalist. People always used to comment about the unique sound of the vocals.

Bonzai: Do you think you're ever going to cut another Number One hit?

Porter: No, I don't think so. I've taken myself out of the position of doing that.

Bonzai: You've said that engineers who think artistically are better than engineers who think technically.

Porter: Yes, I believe that, but you have to know how to use the technology to your advantage. Just like driving a car—if you know how the car functions, you can drive it better.

Bonzai: What do you think about digital?

Porter: I like it in the right applications. I tend to like analog recordings that are mixed down to digital. You maintain the known analog sound. There's nothing wrong with digital, but for some reason it can sound almost razor sharp when you go digital, digital, digital. It's getting better—oversampling, and eliminating the brickwall filters so the phase shift is minimal. I have to stay up with things as a teacher, but I'm lucky to have the experience of the past, which I can apply to today's technology. I think that's the way to make better records.

You have to train your ears. People train their hands to play a musical in-

strument. You've got to train your ears by listening and listening. And when you get tired in a session, you've got to quit, because your ears play tricks on you.

The mind can retain a sound image for about ten seconds, and when you try to compare the next sound, you lose the identity of the first sound. You have to train the ear to understand that. The problem comes when people get psyched up. Their emotions then become their hearing. When that happens, you might as well forget it. You will not make rational decisions. I learned that long ago on a heavy drum session with Billy Graves for a song called "Nothin'." When the record came out it sounded like the drums were in the next room. No way would I do that again.

Bonzai: What's the biggest mistake of your life?

Porter: Well, for some reason, most of my mistakes have somehow led me to better things. I did break down at my first Everly Brothers session. I was freaked out because I was so tired and we had technical problems, and I'd only been in the business for two months. I lost control of myself for the first and last time. I was ready to quit the business that night.

An engineer has to have self-respect and assume responsibility. My son used to watch me mixing the live Elvis shows when I had to handle 40 microphone inputs. He told me how calm I looked. I said, "Son, I'm not. I'm panicking half the time, but you can't show it." A lot of it has to do with the attitude you project. You learn to do that or you lose control over everything.

Recording is so different today, because many of the artists are technicians. In the old days they weren't knowledgeable, and you had to maintain control or they would destroy the product. You had to follow the artist's guidelines, yet remain in charge of the recording without challenging. It took a lot of psychology. You're dealing with all these egos that are sometimes bigger than the people. You can't let that intimidate you. You can train monkeys to turn knobs, you know, but if you can't interact with people and be creative, you're not doing the job you were hired to do. ■

Mr. Bonzai is a Southern California-based recording industry veteran, writer and bon vivant.

RECORD PRESSING • TAPE DUPLICATION



A & R RECORD & TAPE MFG. CO.

TOLL FREE NUMBER

1-800-527-3472

MAJOR IN-HOUSE PRESSING FACILITY

- Custom Albums
- 45 RPM Singles
- Mastering with Neumann VMS70 Lathe & SX74 Cutter
- Digital Mastering Available

TAPE DUPLICATION

- Custom Packaging

COMPACT DISCS

- Custom Packaging

A + R RECORD & TAPE MFG. CO.

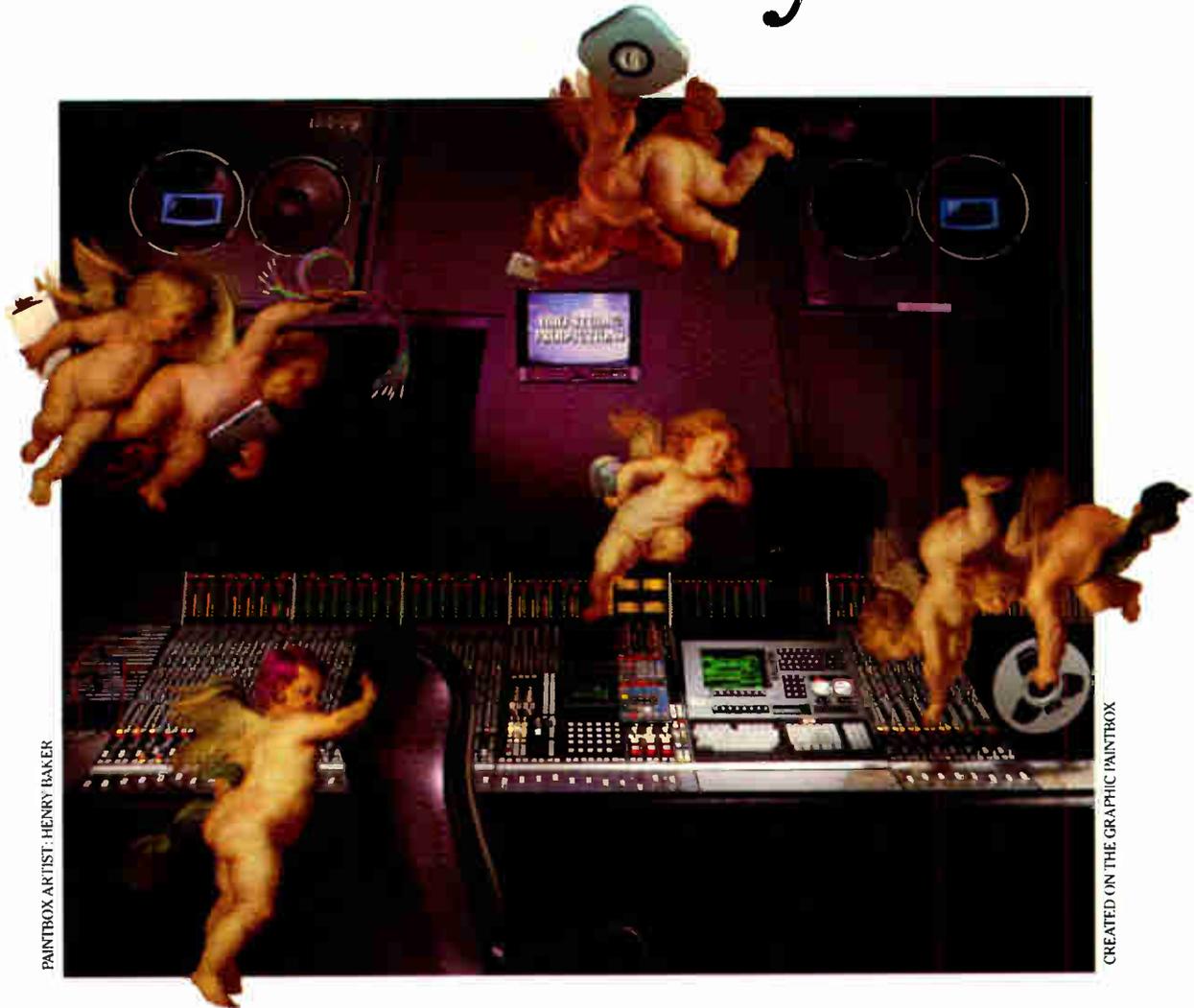
902 North Industrial Blvd.
Dallas, Texas 75207
214-741-2027

MasterCard



Circle #025 on Reader Service Card

Heavenly!



PAINTBOX ARTIST: HENRY BAKER

CREATED ON THE GRAPHIC PAINTBOX

Our New Audio Suite

Now HBO Studio Productions is at the leading edge in audio, too!

We've designed our new Post Audio Suite to meet all the needs of the discriminating video professional. Our Solid State Logic 6000 console with G-Series software and programmable equalizer provides up to 48 channels of input. Our Otari® multi-track ATR's include the versatile MTR 100A 24 track as well as their superb 2 track and 4 track MTR 12 models. The Adam Smith 2600 Synchronizer allows for user-friendly computer control. And that's not all. We've also installed the AMS* Audiofile—a digital

disc recorder for eight tracks of sound layering and editing with total random access.

Plus a sound booth for recording voice-overs, digital sound effects library, Urei speakers, and award-winning talent who will work like demons to create a sound that is truly out of this world!

When you add our new Audio Suite to our unmatched video production and post-production capabilities, you've got one more reason why you'll be more comfortable at HBO Studio Productions.

For further information call Paul Brzozowski or Judy Glassman at (212) 512-7800.

Studio Production • Video Graphics & Special Effects • Editorial • Post Audio
Digital Print Production • Film Transfer • Satellite Transmission*

HBO Studio Productions
120A East 23rd Street, New York, New York 10010

*Arranged and Provided by
Home Box Office Communications, Inc.

® Registered service mark of Home Box Office, Inc.
© 1989 Home Box Office, Inc. All rights reserved.

Circle #116 on Reader Service Card

NEWS

FROM AROUND THE WORLD

UK'S SONY PRO AUDIO TEAM RESTRUCTURES

Sony Broadcast & Communications Ltd. recently announced a new management structure for its British Pro Audio Division. Following the departure of Osamu Tamura to head up Sony's pro audio sales in North America, Chris Hollebhone has been promoted to general manager, pro audio. In his new role, Hollebhone is responsible for coordinating Sony's audio product sales and marketing strategy throughout Europe, Africa and the Middle East. He has been with the company since the formation of the Basingstoke-based Pro Audio Division in 1980.

Richard Salter, formerly senior manager, product management, has left the company to devote more time to his career as a professional musician. His management duties have been assumed by John Ive.

ABBAY ROAD'S STUDIO 3 GOES DIGITAL

Last fall, England's legendary Abbey

Road completed vast renovations on Studio 3, revamping its high-tech array with digital multitrack equipment. Studio 3 has the largest control room in the UK, featuring a pair of 32-track Mitsubishi's, a Sony 24-track and a Cal-rec 64-channel mixer. Pink Floyd inaugurated the studio to remix their new live album, *The Delicate Sound of Thunder*.

When Abbey Road opened its doors in 1931, it had three studios. General manager Ken Townsend has been at Abbey Road Studios since 1953, after beginning his career as an apprentice in 1950 at EMI Electronics' factory and research and development department. "Except for the fact that we have altered the acoustics and the control room is entirely different, Studio 1 remains virtually unchanged," Townsend says, crediting that fact to the brilliance of the original design. "We used Studio 2 [where the Beatles recorded] mostly for big bands, and Studio 3 was used primarily to record classical works."

As an indirect result of the enor-

mous popularity of the Fab Four, Abbey Road was suddenly faced with the task of equipping for a national pop explosion. Says Townsend, "We went to stereo in 1957 and began using 4-track recording from 1960 onward—but initially on classical recordings. We also abandoned the EMI equipment and began using Studer tape machines. From then on we were really in the forefront of technology. We continued to design and manufacture our own mixing consoles right through to 1974, with the one in use on most Beatles sessions being the REDD 37."

Analog is still a producer's popular choice at Abbey Road, according to Townsend, despite the fact that the studio's recent renovations have all been digital. He adds, "Even on digital recordings many artists prefer to mix to ½-inch analog, and so the number of ½-inch machines we've had to buy recently is increasing. Agfa analog ½-inch has become quite a standard because of its soft limiting and compression."



Studio Spotlight

Fonovision Internacional is the largest complete audio recording studio in Colombia, and one of the largest in South America. Located on a farm-like parcel in northern Bogota, the facility was designed by John Storyk in 1981 for owners Enrique Gavria and Herb Wioder. It covers 6,000 square feet.

Studio A measures 2,650 square feet (with a 30-foot ceiling) and has video shooting capability. The complex includes a second studio as well as offices, a shop and other support facilities. The control room is fitted with a 48-input Neve console and a monitor system custom-designed by Ted Rothstein. ■

Visit the world greatest cathedrals

without leaving your studio

DRP - 20 Reverb & Effects Processor

- * 32-bit Signal Processing
- * Room Simulation
- * Stereo Effects
- * Mixed Effects
- * Two Channel Effects
- * Automatic Freeze
- * Super Chorus
- * Programmable Gate
- * 100 Factory Presets
- * 128 User Memories
- * MIDI to Parameters
- * Multi-Tap Effects
- * 15 Early-Reflection Clusters
- * Vacuum Fluorescence Display
- * Easy User interface

32 BIT FLOATING
POINT SIGNAL
PROCESSING



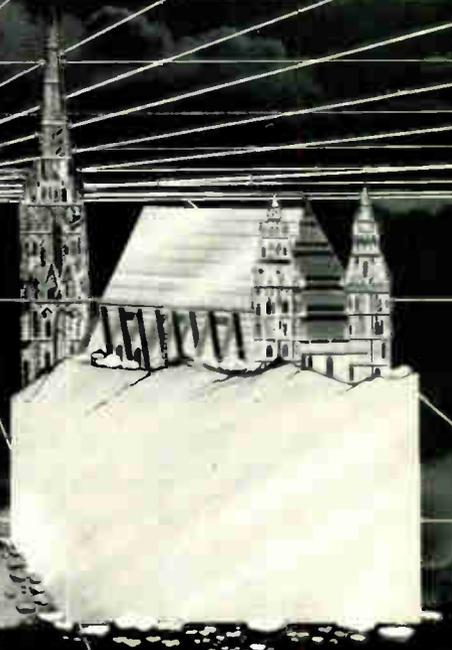
The acoustics of old world cathedrals and many other sonic environments, have been ruthlessly copied for the DPR 20.

In less than a year the DPR 20, with its 32bit floating-point technology, now ranks among the world's elite and is treated as a real hot tip. Not least because its price/performance ratio is so amazing that it is available for a third, fifth or even an eighth of what a real pro studio reverb & effect processor used to cost! International test reports underline the DPR-20's exceptional reverberation quality, its truly infinite editing facilities, outstanding user friendliness, superior MIDI capabilities and the clear fluorescent display.

The 100 factory programs can be edited in any conceivable way and then stored as one of the 128 user programs.

You'll be amazed at what it can do:

Ask for a demo at your nearest DYNACORD dealer now.



DYNACORD®

Circle #117 on Reader Service Card

Drum Workshop Inc. • 2697 Lavery Ct. • Unit 16 • Newbury Park 91320 • California

World Radio History

INTERNATIONAL · UPDATE

With the reopening of the renovated Studio 3, Abbey Road is looking toward a new era in its half-century of development.

GLASNOST COMES TO SOLID STATE LOGIC

As part of the continuing processes of *glasnost* and *perestroika*, engineers from Mosfilm, the Russian State film company, have visited SSL's Oxford headquarters for training on SL 4000 G Series and SL 5000 M Series consoles. The British company is supplying Mosfilm with four consoles for a



Abbey Road Studios manager Ken Townsend seated in the control room of historic Studio 3.

new Moscow music recording and dubbing theater complex, as part of a major expansion and equipment modernization program intended to attract Western film producers and artists.

The engineers from the new Mosfilm Tonstudio received operational and technical training for their pair of 40-channel G Series consoles with G Series Studio Computers and Total Recall, and their two identical SL 5676 M Series Film Post-Production consoles with 42 channels, G Series Studio Computers, Total Recall and Instant Reset.

RELAX



"...Probably the best equipment I've ever worked on, with a great staff, in a beautiful setting..."

Lincoln Clapp, Engineer to Aretha Franklin, Whitney Houston

"...a high-tech facility in an environment isolated from big-city pressures... a special environment suited to high creativity..."

David Stone, Engineer, NYC

19 Marble Avenue
Burlington, Vermont 05401
802-658-6475

White Crow

A recording studio for the serious artist.

INTERNATIONAL STUDIO NEWS

A four-studio production house has opened for business in the Philippines. **WORKS AVE.**, located in Makati, is equipped with a Soundcraft TS-12 24-channel board, Soundcraft 762 III recorder and complement of MIDI and synchronization gear for video production in Studio A. Studio B features an extensive array of compu-edit controllers, switchers and other equipment capable of VITC/LITC and SMPTE/MIDI conversion. Studios C and D are respectively video-to-film and film-to-video transfer rooms...

Surrey Sound recently invested in a Mitsubishi X-850 32-track digital recorder as part of the latest in a series of improvements to that British facility. Other features of the newly refurbished studio include a separate MIDI programming suite and a DDA AMR console with MasterMix automation, comprehensive music-to-picture facilities and a unique UREI sub-bass monitoring system... Mitsubishi has also been making inroads on the Continent, with deliveries of a Westar 52-channel automated console and an X-850 to **Sound Mill Studios** in Austria, a second X-880 32-track digital machine to **Marcadet Studios** in France and a 52-channel automated Westar to **Paradise Studios** in Munich... **Pacific Communications** in Sydney, Australia, has taken delivery on an AFV 8+8 automated audio console for television from Orion Research, Inc.

... Montreal's **Sonolab**, one of Canada's leading television and video facilities, has installed a new 48-input Neve Custom V Series Film Rerecording Console for feature film dubbing. The



upgraded room is one of six audio studios at the complex, which occupies two square blocks in the Canadian metropolis. . . The Finnish-built **Royal Viking Sun** set off recently on her maiden voyage from London to New York with a full complement of Soundtracs MX and FMX consoles in its nightclubs and concert hall. Claimed to be the most luxurious

Engineers from Mosfilm test an SL 5676 console at SSL's Oxford, England, headquarters.

cruise liner ever launched, the vessel also boasts an electronic golf course, casino and "swim-up bar". . . In Toronto, **Wellesley Sound Studio** reports adding a Dyaxis digital audio

workstation to its facility. Wellesley has already used the hard disk recording system on a number of album and film soundtrack projects. . . Digital Audio Research, makers of another tapeless digital audio workstation, reports delivery of its SoundStation II to **BBC Radio** for use in the production of magazine, drama and feature programs. ■



SONY PRODUCTS FOR ALL PRO-AUDIO APPLICATIONS

- APR 24 MULTITRACK RECORDER
- APR 5003 2-TRACK RECORDER with CenterTrack Time Code
- PCM 2500 DAT RECORDER
- MXP 3000 AUTOMATED MIXING CONSOLE
- Microphones

AMERICAN PRO AUDIO has available the whole line of SONY products in stock and at great prices. We can handle all your audio needs from system design to service and will work with you to give you the best for your budget; lease packages are also available.

CONTACT DICK McCALLEY or
LEE WINDSPERGER

612-925-9423

A M E R I C A N
PRO AUDIO INCORPORATED

4806 PARK GLEN RD.
MINNEAPOLIS, MN 55416
612-925-9423

Circle #016 on Reader Service Card

AUDIOPHILE DUPLICATION ON ANY SCALE FOR PENNIES/CASSETTE SYSTEMS FOR ANY PRODUCTION REQUIREMENT OR BUDGET



SYSTEM COST
\$83,960

PRODUCES
447 C-45s/hr



SYSTEM COST
\$20,950

PRODUCES
97 C-45s/hr



SYSTEM COST
\$37,782

PRODUCES
195 C-45s/hr

SYSTEM COST
\$9,987

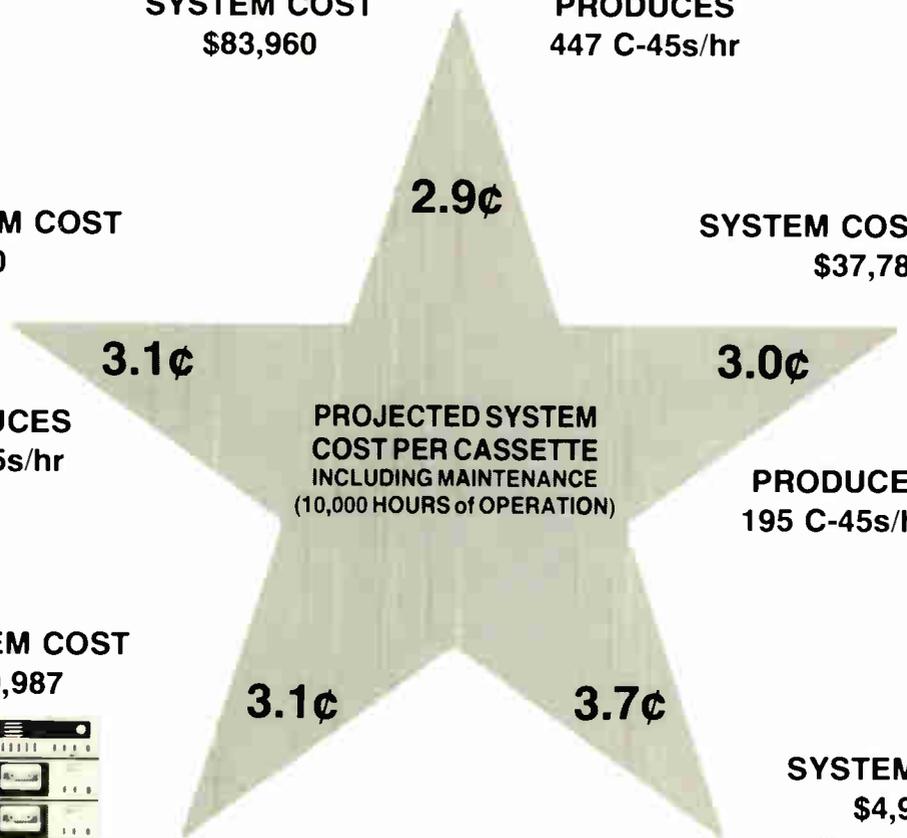


PRODUCES
47 C-45s/hr

SYSTEM COST
\$4,938



PRODUCES
19 C-45s/hr



KABA AUDIOPHILE CASSETTE DUPLICATION EQUIPMENT



KABA Research & Development
(a division of Kenneth A. Bacon Associates)
Toll Free (800) 231-TAPE

24 Commercial Blvd., Novato, CA 94949
in CA call (415) 883-5041

by Alan Parsons

ROLAND E-660 DIGITAL EQUALIZER

It is all too easy for a manufacturer to add the word "digital" in prominent lettering to the front panel of a new processing device. Unfortunately, in many cases it is nothing more than a buzzword, designed to entice the user in the hope it will be interpreted as a substitute for the word "quality."

With the current plethora of digital processors on the market, it is good to see that Roland is taking genuine digital-domain processing seriously. The E-660 digital parametric equalizer, along with the R-880 digital reverb, represent Roland's first venture into equipment with the ability to function entirely in the digital domain; i.e., there is no need to convert the signal from analog electrical pulses into numbers, or vice versa.

Given that fact, the E-660's digital facility will be appreciated only by the select few who have the necessary equipment to interface with the unit. However, there will be many who will be able to use it "one-sided"—in other words, with only one converter—either to get the equalized analog signal into digital form, or to take a digital signal, EQ it and convert it to analog for monitoring or mixing.

The digital input signal can be fed to a single phono jack for both A and B channels, and in the format known as SP-DIF. This format, developed by

Sony and Philips, is available on many DAT recorders and CD players. The digital output is of the same format and appears on an adjacent phono jack on the back panel. A pair of optical interface sockets is also provided.

Selection of sampling rate and emphasis is adjusted automatically according to the input signal. If no digital input is present, the machine adopts a 48 kHz sampling rate without emphasis.

Of course, it is by no means obligatory to use the E-660's digital ports. Provision has been made for analog input and output connections to the real world via pairs of balanced XLR connectors, or 1/4-inch jacks for unbalanced use. The wiring configuration of the XLRs is thoughtfully printed next to the panel connectors, indicating that pin 3 is hot. This is presumably for the benefit of the many studios using pin 2 as the hot wire, where phase problems or loss of signal in unbalanced lines could be encountered.

The device can be operated in three different ways. It can equalize two separate channels independently or simultaneously in four EQ bands (4-band serial mode). Secondly, it can equalize a single channel in eight frequency bands (8-band mode). And it can operate in 4-band parallel



mode. I prefer to think of this as a "bandpass" mode, offering two separate channels of filtering in four bands. A further feature in this mode provides for different postdelays (up to 99 ms) to be applied to each band. This makes for some interesting special effects.

A variable predelay of up to 500 ms is available on each channel, in all modes. Any EQ in either of the 4-band modes can be applied to one or both input channels. The latter is useful for applying overall EQ to a stereo program source.

In 4-band (individual) mode, a two-position rotary switch selects one of the two inputs for modification. Any settings remain active on one channel when the other channel is selected, even though the display only shows the settings for the currently selected channel. If the simultaneous stereo EQ option is activated (confusingly referred to as A-B mode), two separate sets of stereo EQ can be programmed and compared. The manual does not make this clear; better terminology would improve matters.

In 8-band mode, the rotary switch

A unique and powerful feature of the E-660 is its ability to show a frequency-characteristic curve on the LCD screen.

~~~~~  
selects which group of four bands of equalization (1-4 or 5-8) becomes active. If you are in 8-band, A-channel mode, channel B is left flat, and vice versa. Variable predelay is available in both the equalized and unequalized channels.

The input level control affects only the analog inputs. The digital input levels are software-controlled and can be combined with the analog inputs. So we could effectively use the unit as a 4-channel mixer! Input levels are displayed on LED bar graph meters,

and a pair of red indicators show the active channels or bands.

The rotary EQ controls are laid out in two rows of four. They serve different frequency bands, depending on whether we are using 8-band or one of the 4-band modes.

The top row controls the Q curve for each band. Additionally, the low and high knobs have a spring-loaded switch that causes these bands to take on a shelving characteristic. In 8-band mode, shelving is only available on bands 1 and 8. The bottom row of four knobs are dual rotary pots that control the EQ frequency of the four active bands, and the levels, continuously variable from -12 dB to +12 dB.

The manual is confusing and not too comprehensive in its description of the features available in the various modes. Expressions like, "Moving a knob even slightly cancels the current value and renews it with the position of the knob," don't make life easy.

Now that I know the machine through operational experience, I see the 4-band modes as independent EQ control of two discrete channels, or "stereo gangable"—if required—so that the same EQ is applied to both channels. I prefer to look at the 8-

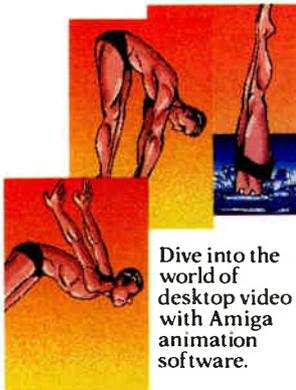
# The Computer for the Eyes.



Capture color or black and white images with New Tek's Digi-View.



Paint in up to 4096 colors with Microllusion's Photon Paint.



Dive into the world of desktop video with Amiga animation software.



Create spectacular video effects with A-Squared's Amiga Live!

With the Commodore® Amiga personal computer, you can create music videos right along with your MIDI music tracks. The Amiga® is being used by major recording artists and network television producers to create professional-quality video graphics, special effects, and animation in 4096 simultaneous colors. And you can get that same professional production power at a price that will fit right in with your home studio.

Get an eyeful of Commodore Amiga. It's the computer that looks as good as it sounds.

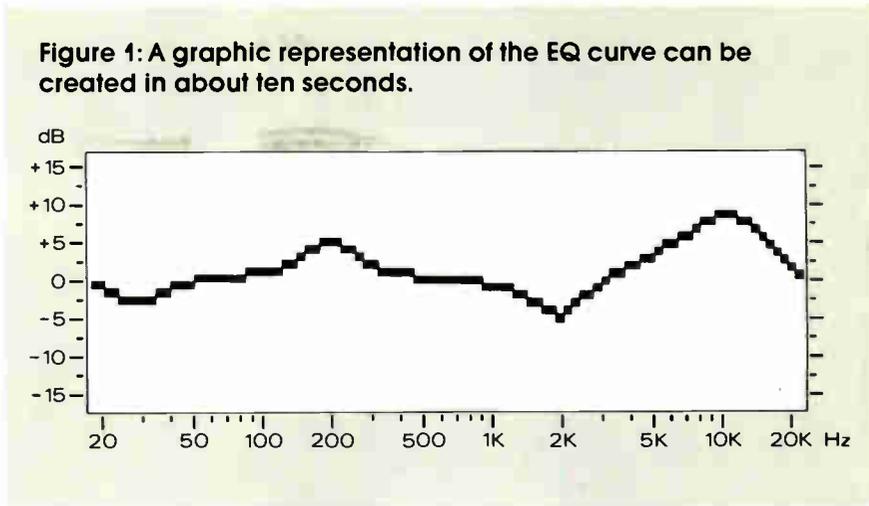


band modes as a monophonic process, though as mentioned earlier, pre-delay can be applied to the unequalized channel.

EQ settings can also be made on a numeric keypad to the right of the unit. Many of these buttons perform a dual function along with eight more buttons that control the mode switching, memory manipulation and graphics displays.

The first procedure is to adjust input levels using a simple utility function. Both analog and digital input "pads" can be adjusted from 0% to 100%. Levels can be set with the keypad or with the +/- keys. As the current settings are retained when power is turned off, it is important to inspect these levels, or we might find no signal getting through as a result of an earlier session! Any unwanted EQ settings can be cleared by holding "shift" and entering "clear." This also initiates the default settings for the frequency bands and Q curves.

By entering the required equalization mode, you can step through all the mode options. These are displayed as: 4-band serial, 8-band A-CH, 8-band B-CH and 4-band parallel. Once the mode is set, you can enter the EQ



function. The manual describes this mode setting quite accurately, but it gives no indication of the 4-band mode channel configuration (stereo or independent) until six pages later! This configuration setting is referred to in the manual as "parameter mode," which is utterly baffling, as the expression "parameter control" is also used to describe the actual equalizing functions. To make matters worse, a button marked "parameter" controls the predelays and postdelays!

Equalization is often an experimen-

tal process. The beauty of this device is that the LCD display changes to reflect any adjustment you are making at any given time. In other words, if you turn the Q knob for the low range, the display will change to a page showing the current frequency and place the cursor next to the Q display. As any other setting in the same band is modified, the cursor moves to the appropriate line on the display so that entries can be made numerically from the keypad.

Best results are obtained when the

# The Computer for the Ears.

The Commodore Amiga personal computer lets you run a MIDI sequencer at the same time you edit your patches, scores, samples—even your production notes. It's a process called multi-tasking, and it's an Amiga first. There's a large and growing library of top-quality music software to choose from, including packages from Dr. T's, SoundQuest, New Wave, Intelligent Music, Blank Software, Mimetics, and more.

So take in the sights and sounds of the Commodore Amiga family of personal computers. Call 1-800-627-9595, ext. 200, for more information and the name of your nearest authorized dealer.



Dr. T's KCS MIDI Sequencer



Kawai K1 Patch Editor from Sound Quest.



Intelligent Music's M Interactive Composition Program.



Dr. T's Copyist Professional Scoring Program

**Commodore**  
**AMIGA**  
Only Amiga Makes It Possible.

# The First MTR Capable of MIDI Control.

- ✓ Can slave to MIDI and run automatically.
- ✓ Can synchronize to video via SMPTE Time Code.
- ✓ Built-in full function Remote Control.
- ✓ Fully programmable— 10-position memory.
- ✓ Under \$2900.\*

\*Actual retail prices are determined by individual Fostex Dealers



SERIAL PORT/  
MODEL MTC-1

The optional MTC-1 plugs into this MIDI port, your access to the world of MIDI. With a sequencer that supports our System Exclusive you'll be able to control all transport functions and make the R8 operate as a slave in your MIDI programming.



SERIAL PORT/  
MODEL MTC-1  
SYNCHRONIZER

The R8 works with all major synchronization systems, but best of all, use the R8 with our complete line of generators, processors and controllers — all software based, therefore always current.



The entire front panel is removable, so you can control all functions — more than ever before — right from your working position. Once you set up your R8 it acts like any other computer. Tell it what to do, and it does it. Faithfully.



Program up to ten memory points and you'll have Auto Locate, Auto Play, Auto Return, Preroll, and Zone Limiting commands right at your fingertips. The memory is fully accessible so you can change cue points and functions easily.

## R8

The 8-Track Computer with the Built-in Remote.

### Fostex®

©1989 FOSTEX 15431 Blackburn Ave. ■ Norwalk, CA 90650 ■ (213) 921-1112

Circle #145 on Reader Service Card

World Radio History

## FIELD · TEST

knobs are turned fairly slowly. Rapid movements cause noise and a small time delay before the change is implemented.

Having an exact numerical representation of a particular EQ setting is a tremendously powerful advantage. It not only allows you to make sense of what you're doing, but allows you to repeat any given setting or recall it from memory. A precise "EQ history" from microphone to master can be stored, repeated or nullified.

A "thru" mode removes the EQ and all the delay settings. Unfortunately, the A/D and D/A converters are not bypassed, so it is not easily possible to assess the transparency of the unit, except by means of an external A-B test.

A "hum canceler" feature is accessed with the utility key. The center frequency can be adjusted to within 0.1 Hz, and the "ratio" for hum canceling ranges from 10 to 99. Although there is no indication in the manual as to what this means, it presumably refers to some form of notch and harmonic filtering. The higher settings have a detrimental effect on the overall audio performance, but in some cases could get us out of trouble—for instance, with a very noisy guitar amp. I would not recommend it to be left in circuit unless absolutely necessary, but nevertheless, it is useful.

A unique and powerful feature of the unit is its ability to show a frequency-characteristic curve on the LCD screen. After pressing the graph button, the selected channel indicator(s) goes out while the necessary calculations are made and the graph is drawn (see Fig. 1). This usually takes about ten seconds. EQ settings can be modified while still in the graphics mode, but it is a tricky business since the change is not heard in the audio until the next graph has been drawn. However, a modified graph takes less time to appear than a new one.

Graphics are not available in the bandpass/4-band parallel mode. This is a shame, because it would be useful to see the width of a filtered band represented graphically.

Ninety-nine user memories are available for the storage of all the parameters, including the "thru" function, meaning that a flat setting can be recalled from memory. However, I found it easier to achieve the same

end in 4-band serial (stereo) mode by clearing the A setting, equalizing the B setting and comparing the two with the channel/band selector switch. You can also assign names to the memories by using a simple series of keystrokes.

The E-660 memory numbers can be paired to MIDI program change numbers, so that any chosen memory can be recalled when a specific MIDI program change is received. MIDI receive can be modified to any of the 16 channels or to omni.

A utility function allows MIDI system exclusive dumps of EQ memories or program tables to a sequencer or other external MIDI device. I had

no problems storing and loading system exclusive data with my Atari ST computer running Passport *Master Tracks Pro* software.

## EVALUATION

No matter how attractive the physical appearance may be, or how comprehensive the operational facilities are, the way a signal processor *sounds* is most important.

Generally, I am very pleased with the way this equalizer performs. The EQ curves behave very musically, even on extreme settings. It is good to have such a wide range of available frequencies in each band, with such

—CONTINUED ON PAGE 183

# SRD

## STUDIO REFERENCE DISC

The Prosonus Studio Reference Disc™ will convert your CD Player into a versatile test generator for all your audio needs. This CD format is compact and portable, enabling you to quickly program tones, sweeps, bursts, etc. to play in any order or repeats as you wish.

### Featuring . . . .

- "CAVEAT" header
- Two sets of 17 different sine wave calibration tones
- Four bands of different sine wave sweeps
- Pink and white noise: steady-state, bursts of different lengths, 1/3-octave and full-bandwidth
- Two different control room monitor tests
- Polarity check, left/right test
- Musical pitch references, both synthesized and acoustic piano
- Acoustic piano listening tests
- Various digital-to-analog converter tests
- AND MORE!

Available Now  
Only  
**\$69.95**

**CODE  
DISC**

Also available separately **CODE DISC™**,  
**SMPTE™** time code on compact disc.



- Accepted -

For more information, **Call Toll-Free 1-800-999-6191**

PROSONUS™

1616 Vista Del Mar • Hollywood, CA 90028 • 213-463-6191 • Fax 213-462-7036

Circle #079 on Reader Service Card

**Valley DCE Digital Compressor/Expander**

Out of Nashville comes Valley International's new stereo digital compressor/expander, intended to provide complete audio signal level control characteristics ranging from mild compression up to "zero attack time" peak limiting. Its complementary expander can be used for noise reduction or special processing effects. The DCE accepts digital input from (among others) devices formatted for SDIF-2, SDIF-3 and ProDigi. Remote control of the DCE is possible via RS-422, RS-232 and MIDI-format systems. Its projected list price is \$3,200.

Circle #086 on Reader Service Card

**DigiTech DSP-128 Plus Digital Multi-Effects Processor**

An enhanced version of the DSP-128 from DigiTech (Salt Lake City, UT) is now available. The 16-bit DSP-128 Plus provides up to four simultaneous digital effects at a 20kHz bandwidth, full user programmability and dynamic, real-time MIDI control. Reverbs of all flavors along with chorusing, flanging, 1.5-second delays, echo, doubling and more are included. The unit can also be controlled by foot-switch via a rear panel jack.

Circle #087 on Reader Service Card



NEW PRODUCTS



**KDS/Sansui WS-X1 6-Track Cassette Workstation**

The first 6-track cassette recorder/mixer has debuted, thanks to KDS Technologies (Bloomfield, CT), a division of Kaman Music. The Sansui WS-X1 consists of a full-featured, 8-channel stereo mixer, high-speed 6-track recorder and standard-speed cassette mixdown recorder. It uses a unique 6-track record/playback head

designed by Sansui. Included is Dolby C,  $\pm 20\%$  varispeed pitch control and autolocate functions; Dolby B or C is optionally available on the 2-track deck. The mixer offers eight mic/line inputs, three aux inputs, effects send/return terminals, six tape cue outputs and two external processor loops; two of the channels also include balanced XLR inputs.

Circle #088 on Reader Service Card

**Aphex Studio Clock**

The Model 800 Studio Clock from Aphex Systems (North Hollywood, CA) builds a "tempo map" of a recording by analyzing inputs, using virtually any timing source (MIDI note or clock, "tapped in" beat, or live or taped musical

instrument). The user can save, edit and play back the map—in sync with the original recording or on its own (to save tape passes). The Studio Clock reads and outputs SMPTE time code (all formats) and MIDI time code, clock and song pointer data. It provides "lock on the fly" capability, along with a "talent click" pulse output for cueing performers. This 1U rack mount device (which provides a direct serial connection to the Macintosh computer) lists for \$595.

Circle #089 on Reader Service Card

**Tannoy AVM Reference Monitor**

Tannoy has brought out a 15-inch high, magnetically shielded, reference monitor. This ducted port system is constructed around heavy vertical and horizontal internal bracing, finished in black vinyl and uses Tannoy's own 6.5-inch mid/bass driver and ferrofluid-cooled coil tweeter with sculptured, asymmetrical phase plate. Frequency response is spec'd at 55 to 20k Hz ( $\pm 3$  dB); sensitivity is 88 dB (2.83V at 1m). Retail price is \$548/pair.

Circle #090 on Reader Service Card

**Rane Programmable EQs**

The MPE 28, MPE 14 and MPE 47 MIDI programmable equalizers from Rane (Everett, WA) provide full MIDI implementation and separate MIDI and EQ displays on the front panel. The MPE 28 is single-channel,  $1/3$ -octave; the MPE 14 is 2-channel,  $2/3$ -octave and the MPE 47 is a 4-channel, 7-band configuration. Each offers 128 memory settings accessible via front panel control or MIDI ports, with the added capability of modifying or combining two curves. Other MPE features include constant-Q interpolating filters, octal and decimal interface capability, phantom power for remote control devices, system exclusive control capability and balanced ins/outs.

Circle #091 on Reader Service Card

**JBL's Seck Consoles**

The Seck line of mixing consoles for recording and live sound applications was purchased earlier this year by Harmon International, the parent company of JBL Professional (Northridge, CA), which will now distribute the consoles in the U.S. and Mexico. Available in various frame sizes up to 24 inputs, Seck con-

soles feature balanced line and mic inputs, 3-band mid-sweep EQ on all channels and an all-metal chassis. The 8-bus desk offers in-line monitoring, an additional stereo aux send and four effects returns with EQ and 8-bus routing, while the 2-bus version has four aux sends, two effects returns with EQ and separate mono output.

Circle #092 on Reader Service Card



JBL Seck Consoles



**ART Multiverb EXT**

This new sampler/reverb/pitch transposer from Applied Research & Technology (Rochester, NY) offers all the effects and features of the Multiverb II, plus extended stereo delay (up to two full seconds) and sampling functions (e.g., you can set up a sampling preset, trigger it automatically or manually and play it back once or in a loop). Along with its four simultaneous effects and the ability to control programs in real time with MIDI, the Multiverb EXT offers 20-bit processing for superior sound quality.

Circle #093 on Reader Service Card

**Peavey QFX 4x4 Multi-Effects Processor**

Peavey's newest processor is actually four in one: four digital, multieffects processors mounted in a single rack-space box. Each module delivers adjustable echo, predelay, early reflections, room size, tonal color, reverb and

more (including up to 2.75 seconds of delay), all via 16-bit sampling and processing. Individual or serial chain operation is possible. The QFX offers full MIDI implementation, includes MIDI in, out and thru, and allows MIDI or front panel access to 128 presets and 128 patches, all remappable.

Circle #094 on Reader Service Card

**Juice Goose 300-R Line Conditioner**

Juice Goose (Houston, TX) now offers a "Tour Class" source for constant, stable, 120-volt AC power with its economical, 3U rack-mount, all-steel package, the 300-R. Along with unadulterated juice (even with incoming voltage ranging from 50 to 150 volts), it provides full protection from EMI, RFI, voltage spikes and surge. This 300-watt model, like its 150W and 600W siblings, has six AC outlets on its back panel.

Circle #095 on Reader Service Card

**Yamaha SPX1000 and SPX900 Effects Processors**

Yamaha's new SPX1000 digital multieffects processor uses second-generation DSP technology to provide such benefits as "simultaneous processing," provisions for programmable digital audio send/return and ability to accept digital audio input. The 1U rack-mount processor (16-bit, 44.1 kHz) offers 40 factory programs (each with adjustable parameters) and 59 user-programmable memory locations. Some

can choose any two parameters for control by MIDI, rocker pedal or joystick. Suggested list price is \$1,795.

Meanwhile, the SPX900 digital effects processor from Yamaha (Buena Park, CA) offers 50 preset effects programs that include: simulations of natural reverb and early reflections; delay, echo, gated, modulation and dual effects; compressor; expander; and much more, all for \$995. The user can edit and retitle any program for storage in one of 49 memory locations. Features include 44.1kHz sampling frequency, extensive MIDI control, 2-band EQ and dynamic filter parameters for each pro-



SPX1000

new programs are reverb algorithm for control of actual room dimensions, 2-dimensional panning, downward expander and an exciter. Along with bypass-toggle, trigger and memory-select jacks, it has unbalanced 1/4-inch inputs and outputs (L+R) and MIDI in and thru. The user

program, and ability to accommodate -20 or +4dBm line levels. The optional RCX-1 remote control unit (\$295) has a complete set of duplicate controls, quick-entry dial and a 16-character x 2-line display.

Circle #096 on Reader Service Card



**Cadence DSP System One Digital Multi-Effects Processor ▲**

Hitting the market with its first product, the new Cadence Systems (Simi Valley, CA) introduces the low-cost (\$849), wide-bandwidth DSP System One. It offers more than 100 programs (chorusing, delay, reverb, sampling, etc.) with 32-bit resolution and, when used in normal mono mode, can perform simultaneous processing. (In 2x mono mode it provides an extra 3dB dynamic range and improved distortion characteristics.) Sampling frequency is 48 kHz for stereo and mono modes,

96kHz for 2x mono. You can control it manually or via MIDI. Standard memory is 64K, although other models offer 128K and 256K (the first two models can be upgraded). Circle #097 on Reader Service Card

**Lyncole XIT Grounding System**

Dig it—and prevent zaps—with the market's first (and currently only) patented electrolytic grounding system from Lyncole XIT (Torrance, CA). Two styles are offered: straight shaft (2-inch copper tube, in various and custom lengths) and L-shaped shaft (for use in shallow trenches). A U-bolt connection holds grounding wires between #8 and

#4/0 AWG (other sizes optional). The system provides highly stable, low-resistance earth grounding in all soil conditions. Basically, it automatically creates and disperses an electrolytic solution into the soil, reducing electrical resistance between the grounding electrode and the surrounding earth. It's UL-listed, maintenance-free and uses environmentally safe materials; systems can be installed indoors or out. Circle #098 on Reader Service Card

**AKG DSE 7000**

This all-new Digital Sound Editor is the result of AKG's journey into the world of RAM-based digital audio workstations. The self-contained, console-style DSE 7000 provides the equivalent of an 8-track ATR, an editing system and a mixer. It uses a 16-bit PCM format, providing a



20kHz bandwidth at 44.1/48kHz sampling rate (optional 32kHz sampling rate). Designed for spot work and other relatively short recordings, the DSE 7000 lets engineers: edit, copy, move and slip one or more tracks, enjoying 8-track capability with "lossless" track bouncing; "undo" edits, punch-ins and recordings; and mix ten inputs, controlling level, pan, echo send/return, track bounce and solo functions. Circle #099 on Reader Service Card

**HOT OFF THE SHELF**

**Trident's AUTomate II** software for the Di-An console allows automated dynamic control of console parameters in real time, and is supplied free to existing users. Call (213) 533-8900. . . **Augie Blume & Associates' Musicpro: File** database service provides thousands of hot music-industry contacts. Input (415) 457-0215. . . **Paia Electronics' MCVI Processor** converts MIDI data to control voltage/trigger and control voltages and trigger signals to MIDI. It comes as a kit (\$119.95) or assembled (\$139.95). Dial (405) 340-6300. . . **Valentino's music and effects libraries** are now available on compact disc (\$22/each or 22-volume set for \$440). A

new catalog and demo can be yours if you call (800) 223-6278. . . **Leonardo Software's Professional Librarian V3.0** cataloging software for the IBM PC is now available. Their number's (213) 277-5161. . . **Clarity's XLV automation system** now controls the Quantec QRS processor and all IARC switches and faders for Lexicon 224XL/480L use. Call (914) 424-4071. . . **New England Digital's optical disk-based sound effects library**, developed in partnership with Sound Ideas of Toronto, offers more than 2 gigabytes of sound data. Ring up (802) 295-5800. . . **CTI Research's CTI/dbx F410/D20C10/**

**A1520 chip set** is an 18/19/20-bit analog-to-digital converter (typical 18-bit chip sets are \$130 in quantities of 100); an evaluation board is also available. Hackers and samplers, learn more from (617) 964-3210. . . **Lexicon's Version 3.0 software for the 480L** signal processor adds new programs, EQ, transposition and more, and is available at a nominal charge to 480L owners; also, Lexicon's 12-channel EQ/filter option for the Opus digital audio workstation is now available. Direct inquiries to (617) 891-6790. . . **Silver Eagle's Making the Most of MIDI** videotape can be had for \$49.95. Get more info by calling (818) 786-8696. ■

**Southworth Max Audio**

Southworth Music Systems (Harvard, MA) has launched its Max Audio family of boards for the Apple Macintosh II NuBus systems. These cards use the Motorola 56000 signal processing chips, and can reproduce, analyze or synthesize digitally stored audio with fidelity said to be better than of CD. The cards include an analog card (\$1,400) that performs A/D and D/A conversion with a 20-bit converter providing 120dB S/N on playback and supports various sample rates; a Quad 56000 DSP card (\$1,400) with onboard RAM and operating speed of 68 MIPS; and a dual-function, digital audio/SMPTE card (\$995). Circle #100 on Reader Service Card

# Even A Master Can Use A Little Inspiration From The MUSE

**The MUSE.** A fully digital transfer console specifically designed for **excellence** in compact disc mastering and tape preparation.

**The MUSE** offers *true inspiration* through profound advancements in processing power, functionality and precision. Unprecedented speed and ease-of-use unleash your artistic expression.

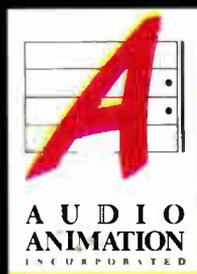
**The MUSE** provides the ultimate in flexibility and creative freedom by channeling its powerful capabilities to you through a remarkably intuitive interface. The control panel, designed with the guidance of top mastering experts, makes all relevant information instantly available through a high resolution color screen and 10 displays of up to 80 characters each. Create EQ and DRC curves with great finesse via the color screen . . . or with conventional controls.

**The MUSE** makes it simple for you to be a perfectionist with 24 to 56-bit extremely accurate real-time processing. Surpass the most demanding expectations of your clients and yourself using the **MUSE's** highly sophisticated software and **thousands** of control settings. Configure the processing modules, route signals, edit automation, adjust time code, design ultra-precise EQ and DRC curves, monitor any point on the signal path with headphones, line or VU meter . . . and much more.

And the **MUSE** will maximize your productivity with an automation scheme that allows over 80 minutes of updating control functions at 100 times per second. An entire CD may be mastered automatically . . . even while the **MUSE** is unattended! Store and recall every setting simply and swiftly with a disk-based system.

**The MUSE** achieves a new standard in sonic quality. Clear, uncolored sound is the superb result of the **MUSE's** proprietary architecture and algorithms, unparalleled processing speed, FIR filtering techniques and zero phase distortion. **All processing takes place totally within the digital domain** to give you the utmost in sound performance.

Choose a mastering console that brings out the genius in you. **The MUSE**



*Bringing you  
the future  
of sound*

Audio Animation, Inc.  
210 W. Magnolia Ave.  
Knoxville, TN 37917  
Tel.: (615) 544-0458  
FAX: (615) 637-3423

Circle #131 on Reader Service Card

World Radio History

# THERE CAN BE ONLY ONE WORLD LEADER IN MUSICAL SIGNAL PROCESSING.



## THE SGE - STUDIO SUPER-EFFECTOR

- 9 stunning studio effects at once!
- Bandwidth to 20kHz
- 2 full octaves of pitch transposing
- 200 memory locations
- Real time Performance Midi®
- Amazing distortion and overdrive
- Full parameter programmability
- Rugged internal power supply
- 16 Bit state-of-the-art D-A converters
- Hyperspeed edit buttons
- Sys-ex codes
- Random access keypad
- Studio presets of the finest guitar sounds
- Stereo in/out
- Software updateable-never becomes obsolete

### Effects

- Harmonic Exciter
- Noise Gate
- Envelope Filter
- Pitch Transposer (over 2 full octaves)
- Equalizer
- Peak Limiter
- Expander
- Compressor
- Stereo Flange
- Overdrive • Distortion
- Stereo Delay • Stereo Echo • Tap Delay
- Stereo Imaging, Panning • Digital Reverb
- Gated Reverb • Reverses • Stereo Chorus.

A.R.T. proudly introduces one of the most powerful signal processors ever built. 9 shimmering effects at once with sound purity that is beyond description! The ability to mix and match nearly every effect you can think of. All fully programmable, at a breakthrough price from the world innovator in musical signal processing ...



**APPLIED RESEARCH & TECHNOLOGY INC.**

Circle #136 on Reader Service Card

Export Distributors:  
 THE NETHERLANDS: Audioscript B.V. Soest 02155-2044 FINLAND: MS-Audiotron/Helsinki/90 566-644 SWEDEN: Muskantor & Co., Molndal/031-87800 FRANCE: High Fidelity Services SA/Paris 1-42.85.00.40 CANADA: Yorkville Sound LTD., Scarborough 416-751-8481 ITALY: FRATELLI CRASIO PAVIA 0385 48 029/WEST GERMANY: PME Audio BAD FRIEDRICHSHAL./071 36-6029/  
 SWITZERLAND: Musikengros P. Gutter Sissach 061-983757 HONG KONG: Audio Consultants LTD., Kowloon 3-71 25251/JAPAN: Nihon Electro Harmonix Tokyo 03-232-7601/THAILAND: Beh Ngiep Seng Musical Instruments Bangkok 222-5281 INDONESIA: PT Kirana Yudha Teknik/Jakarta 3806222 SINGAPORE: Lingtec PTE. LTD./7471951 SPAIN: Aplicaciones Electronicas Quasar SA Madrid 6861300 TURKEY: Kadri Cadmak Istanbul 1 1661672 DENMARK: M.I. Musik/Kobenhavn 1-854800 U.K.: Harmon U.K./Slough 075376911 NEW ZEALAND: Maser Digitek/Auckland 444-3583/4  
 ISRAEL: JAZZ ROCK Tel Aviv 03-24-9941 ARGENTINA: Lagos Sarmiento/Buenos Aires 40-6455 NORWAY: AUDICTRON/OSLO 2 35 20 96 TAIWAN: Sea Power Co./TAIPEI/C231-33113  
 GREECE: ZOZEF PIRAEUS 014170151  
 World Radio History

by George Petersen

# PRODUCT CRITIQUES AND COMMENTS

## INDUSTRIAL STRENGTH INDUSTRIES R-16

**I**n first, the idea sounds like one of those fast-talking TV commercials: "Not sold in stores! Call now to take advantage of this incredible opportunity..." Admittedly, there are *some* similarities between Industrial Strength Industries and the myriad vegetable slicer/dicers and oldies record collec-

converters, 32-bit arithmetic logic processing, 31 factory programs, 60 user presets, 14kHz bandwidth of processed signals (20kHz direct-signal bandwidth), MIDI control and spectrum analyzer capability. The latter requires an Atari ST or IBM-compatible, and the R-16 includes disks for use with both computers.

The front panel is laid out logically



tions offered to late-night couch potatoes. All provide products directly to consumers at a substantial savings. However, the differences far outweigh the similarities. ISI's mail order offerings include high-end, professional audio tools such as the N.I.H. line of mixers, amps, equalizers and cross-overs, the Roger Nichols-designed Wendel jr percussion replacement device, and the R-16 programmable digital effects processor.

Sold at a direct price of \$995, the R-16 is an extremely versatile outboard processor that provides reverb, pitch shifting, sampling, echo and modulation effects, all in a single rack-space unit. Features include 16-bit digital

with program select, editing and function keys, and level controls on either side of a large, backlit LCD display of program names and parameter values. A bright, two-digit LED indicates program number, and a five-step LED meter monitors input level. Among its back-panel connectors are: L + R (mono), mixed (combined dry and wet signal) and stereo outputs; MIDI in/out/thru ports; ¼-inch footswitch output jacks for the hold and mute functions; and input jack. All the audio signal connections are made via unbalanced, ¼-inch jacks.

While the R-16 doesn't include a remote control, a pinout for its rear-panel control jack is provided in the

**The R-16  
programmable  
digital effects  
processor**

**DigiTech's  
IPS-33  
Intelligent  
Pitch Shifter**



**DON'T GET ZAPPED!**

Investing in a Control Room or Studio?  
**PROTECT YOUR INVESTMENT**

Model TPC  
 115-8-A-951

Power up with... **Z-LINE®**



Protect your expensive equipment with our  
**Z-LINE AC Power Distribution and Control System.**

POWERFUL • AFFORDABLE • STACKABLE • EASY TO INSTALL  
 COMPACT • QUIET • LIGHTWEIGHT • EMI/RFI FILTER  
 GROUND ISOLATION • SPIKE AND SURGE PROTECTION

Order now . . . Priced at only **\$160.00**

Distributor Inquiries Welcome

**PULIZZI ENGINEERING INC.**

3260 S. Susan St., Santa Ana, CA 92704-6865

(714) 540-4229 FAX (714) 641-9062

Circle #043 on Reader Service Card

—CONTINUED FROM PAGE 97, PRODUCTS

manual. Such a device could be fabricated easily using a small housing and five momentary switches for the memory up/down, hold, mute and recall functions.

Operation is simple, once you get used to the R-16's terminology. The front-panel section marked "memory" actually deals with program selection and storage, with up/down buttons for scrolling through the various presets, and a button marked "recall," which is labeled as "enter" on most other devices. With this in mind, I started checking out the factory programs. The basic effects include echo, ping pong, multitap, chorus, flanging, tremolo, phasing and autopanning. All are a lot of fun and quite useful for P.A., studio or instrument applications. Input gain is variable from -30 dBm to +4 dBm, so the unit can be used with just about any system.

Twelve reverb presets are provided, including rooms, halls, and reverse, gated and infinite effects. The reverb quality is first-rate; I assume the R-16's 32-bit arithmetic co-processor plays no small part in achieving such dense, rich reverberation. I prefer a larger variety of factory reverb settings; however, the provided presets are suitable starting points for creating your own sounds. With the R-16's large LCD parameter display, tweaking sounds is easy, even fun. Select the desired preset effect or reverb program, press the "data" button until the desired parameter is highlighted (all are displayed simultaneously) and use the up/down keys to change values. A wide range of parameter adjustment is available; for example, in the room reverbs, pre-delay is variable (in 1 ms steps) to a maximum of 1,600 ms, so the user can create effects ranging from subtle to startling, and everything in between.

I was pleasantly surprised by the R-16's sampling and pitch change capability. Sampling is limited to two seconds, and depending on the mode used, can be triggered by a front-panel switch, a back-panel footswitch jack or via MIDI. The sample length can be truncated in 1 ms steps, and the 16-bit (14kHz bandwidth) sample resolution was crystal clear, nearly indistinguishable from the CD source material I fed into the unit. Since a sample is stored in volatile RAM, any sample will be lost if you power down or

**Heard By Millions but Seldom Seen**

**Condenser**  
**STUDIO QUALITY**  
**Contact**  
**Condenser Microphones**

- 42 Hz to 22 kHz frequency response
- Superb clarity—true acoustic sound
- Complete isolation—easy to use



CALL 1-800-CT AUDIO

C-T Audio Marketing Inc., 3050 S.W. 14 Place, #3  
 Boynton Beach, Florida 33426

Circle #044 on Reader Service Card

exit the sampling mode.

The unit's pitch change algorithms consist of two presets, "pitch change + multitap" and "dual pitch change." Both offer transposition over a  $\pm 1$  octave range, adjustable in one semitone steps (or within 1/100 semitone via the fine-tune control). Pitch change + multitap can create some neat effects ideally suited for vocals, and since the three independent delays can be set as long as 2,000 ms, some bizarre permutations are possible. The dual pitch change, providing two voices that can be independently transposed and routed to the left/right outputs, is more of a general-purpose tool, useful for creating parallel instrumental or vocal harmonies or for manipulating sound effects.

Software included with the R-16 enables using it for spectral analysis applications in conjunction with an Atari ST or IBM-compatible computer. The source audio is fed into the R-16's audio input jack, and data communication between the R-16 and host computer is via MIDI. Despite a few typos in the software, and a less-than-slick user interface, the program worked flawlessly on my Atari ST, providing 1/3-octave, 2-D and 3-D FFT displays, which can be printed out for comparing or archiving results.

With a host of useful programs and features, the Industrial Strength Industries R-16 is the most flexible and powerful signal processor around in the under-\$1,000 market. Unfortunately, since it is only available by mail order, the customary, prepurchase test drive seems next to impossible. With this problem in mind, ISI provides a five-day trial period, with a no-hassle refund if the user is dissatisfied with the product, as long as the unit is returned with original packing, manual and warranty.

Industrial Strength Industries, 13042 Moore Street, Cerritos, CA 90701, (213) 921-2341 or (800) 537-5199.

#### **DIGITECH IPS-33 INTELLIGENT PITCH SHIFTER**

Technology is wonderful, constantly spoiling us with better audio toys at lower prices. A fine example of this trend is DigiTech's IPS-33 Intelligent Pitch Shifter, an amazing box priced at an equally amazing, rock-bottom price of \$799.

The IPS-33 creates one or two additional pitch-shifted notes from a single input, providing accurate, musi-

A U D I O

# Cassettes

**AS EASY AS...**

- 1** REAL TIME DUPLICATION  
AUDIOPHILE QUALITY
- 2** HIGH SPEED DUPLICATION  
COMPETITIVE PRICES
- 3** CUSTOM BLANKS  
LOADED TO YOUR SPECIFICATIONS

ESP MEANS QUALITY FULL SERVICE PRINTING AND PACKAGING, FRIENDLY PROFESSIONAL SERVICE, COMPETITIVE PRICES, FAST TURN-AROUND AND HIGHEST QUALITY RAW MATERIALS.

EASTERN  
STANDARD  
PRODUCTIONS, INC.  
26 Baxter Street  
Buffalo, NY 14207  
1-716-876-1454

**1-800-527-9225**

V I D E O

Circle #045 on Reader Service Card

# THE ONE AND ONLY FOR

# SONY®

- SONY Pro Audio
- SONY Pro DAT
- SONY Parts & Service

**(212) 586-5989**

## AudioTechniques

A Manny's Music Company.

1619 Broadway, New York, N.Y. 10019  
FAX: 489-4936

Circle #046 on Reader Service Card



**WE MAKE THE RECORDS YOU HEAR!!!**

**Thanks to everyone who helped make last year a success**

- |                    |                |                      |                      |
|--------------------|----------------|----------------------|----------------------|
| Circus of Power    | Reggie Lucas   | Inxs                 | Capitol Records      |
| Del Fuegos         | Lionel Job     | Morris Day           | Columbia Records     |
| Wrathchild         | Max Norman     | Smokey Robinson      | Warner Bros. Records |
| Constina           | Andy Wallace   | Pet Shop Boys        | Polygram Records     |
| The Fat Boys       | Teddy Riley    | Chaka Khan           | Elektra Records      |
| Gregory Abbott     | Reggie Griffin | Four Tops            | RCA Records          |
| Lace               | Doc Dougherty  | New Model Army       | Atlantic Records     |
| Atension           | John Piker     | Wild                 | Mushroom Records     |
| Guy                | Dean Gant      | Elisa Fiorillo       | MCA Records          |
| The Feelies        | Henry Allen    | Rough House          | Orion Pictures       |
| Rainy Davis        | George Daly    | Sybil                | EMI Records          |
| Dean & The Weenies | Girardo Velez  | The Weather Girls    | Coyote Records       |
| APB                | Nick Moroch    | Cheryl "Pepsi" Riley | Virgin Records       |
| Beat Noir          | Wayne Werneke  | The Machinations     | Profile Records      |
| Del-Lords          | Thom Trumbo    | Will Downing         | Plateau Records      |
| Aleese Simmons     | Raheim LaBlanc | Chandra Simmons      | Radical Records      |
| Cheyenne           | Gerry Thomas   | David Morales        | Island Records       |
| Ray Simpson        | Leroy Burgess  | Select Records       | Chrysalis Records    |

SSL 4000-E w/Total Recall  
 Studer A-800's, A-820  
 Spacious Live Room 30 x 40

Neve 8048 Console  
 Synclavier w/Full Polyphonic Sampling  
 Extensive Synth & Outboard Rack

**FREE PRIVATE PARKING AREA**

201-656-7023/212-758-7768

Fax: 201-656-1192

Circle #047 on Reader Service Card

**Phone for Your  
 Registration Kit!**

**1 800 446 NSCA**  
**In Illinois 312-598-7070**

**EXPO '89**

- 3 DAYS OF PROFESSIONAL WORKSHOPS
- 290 EXHIBITORS
- PRECONVENTION SALES SEMINARS

**ELECTRONIC  
 CONTRACTORS**

**MAY 25, 26, 27  
 NASHVILLE**

**AUDITIONS**

cally correct two- or three-part harmonies in more than 50 scales. These range from major, minor and blues scales to pentatonic, dorian, mixolydian, aeolian, etc., with variations offered in each. Parallel chromatics (up to a maximum of  $\pm 1$  octave above and/or below) are standard factory programs, as are detuned settings ( $\pm 60$  cents). Any of the factory presets can be altered and stored in user registers.

Producing a unit as complex as the IPS-33 required some trade-offs, and DigiTech has kept the price of the unit at an affordable level by eliminating frills such as a fancy front-panel display. Its layout is similar to DigiTech's DSP 128—spartan, but easy to operate; few other units get so much mileage from a simple, four-digit LED display. Other than the function select and parameter/preset adjust keys, the only controls are a power switch, wet/dry mix knob and input/output levels.

The back panel includes a 1/4-inch audio input, effects loop for inserting a guitar distortion pedal into the pitch shift chain, bypass jack and three audio outputs: Harmony 1, Harmony 2 (normaled to act as a mono output if the Harmony 1 jack is unused) and an unshifted out. The latter is particularly useful in those situations when you run out of console effects sends and want to bring the dry and processed signals into console inputs. MIDI in/out/thru ports are provided, although the unit's MIDI capabilities are limited to program change commands and the saving and loading of presets to and from external devices.

Unlike reverbs (which are often used in a "set and forget" manner), pitch changing and harmony devices are often used for a part of a song, usually during a chorus or solo. With this in mind, the IPS-33 offers four different methods of bypassing the signal processing: toggling the function keys to the bypass position; turning the output mix control to the "dry" position; using an optional foot-switch; or activating preset #57. Appropriately named "bypass," preset #57 can be activated by a MIDI program change command for automated production or live performance applications.

Operation is a simple matter. Pick a preset, specify the song's key and you're on your way. DigiTech has thoughtfully placed the factory har-

monies into preset groups that work best with different kinds of music. For example, the first nine presets are designated as "rock harmony," the next four as "blues harmony" and so on, including country, jazz/fusion, big band, new age, avant-garde, chorus, etc. Thus, users who wouldn't know the difference between a major pentatonic 1-3 and a minor aeolian 3-5-1 (both are in the rock harmony section) can quickly find an appropriate scale.

I began my listening tests with a recording by one of the most famous pitch shifters of all time, Ross Bagdasarian, a.k.a. David Seville of Chipmunks fame. His 1964 *The Chipmunks Sing the Beatles* LP (now on CD: EMI CDP7-48379-2) was recorded in typical, early '60s pseudo-stereo, with the instruments on the left channel, the vocal on the right. Since he originally made these records by cutting the vocals at half speed, a one-octave pitch drop (IPS-33 preset 15) applied to the right channel restored Mr. B's voice. This was cool, but even hipper was the fact that rotating the output mix control yielded The Chipmunks in the "dry" position, Bagdasarian's triple-tracked vocals at the "effect" position and all of the above when in the 12 o'clock setting. The IPS-33 passed this test with flying colors, and no doubt, this "chipmunk protocol" will be adopted as the standard criterion for evaluating pitch shifting devices in the future.

The IPS-33's large selection of factory presets offers a wealth of creative and utilitarian avenues for instrumental and vocal production. Single sax or trumpet notes become full horn stabs; string samples and patches are fattened considerably by adding a touch of the same sound (an octave higher) into the mix; a bit of slight detuning added to an FM piano patch adds a large degree of realism; and background vocals (particularly single-note oohs and ahs) are a snap. As with any effect, using the IPS-33 on lead vocals was not always a sure thing: female vox yielded better results than male, depending on the song, key and preset used.

Editing the factory presets was no sweat, and users shouldn't be afraid to experiment. User modifications are not entered into memory until "preset save" is enabled. If you really mess up the factory settings, a "global restore" function will bring them back.



It's not enough to study the "art" of recording. You simply must learn the *technology* of recording. That's the only way to insure your career for today *and* tomorrow!

"IAR grads are the most highly motivated and best trained of anyone entering the engineering field. I give IAR my highest endorsement."

Dan Healy, Chief Engineer  
The Grateful Dead

**800-544-2501**

NY, NJ, CT 212-777-8550

Lic. by NYS Ed Dept / HS Diploma or GED Required  
App for Veterans Training / Financial Aid if Eligible



**Institute of Audio Research**

64 University Place, Greenwich Village, New York, New York 10003

Circle #049 on Reader Service Card

Keep it quiet!

**DD Dolby®**

Dolby SR or Dolby A

Switch between both formats  
with the new Model 363.

Always in stock at AudioTechniques,  
a Dolby dealer for more than 15 years

**(212) 586-5989**

**AudioTechniques**

A Manny's Music Company.

1619 Broadway, New York, N.Y. 10019

FAX: 489-4936

Circle #050 on Reader Service Card



## RECORDING ENGINEER

The Music Production and Engineering Department within the Music Technology Division is now accepting applications for a Recording Engineer faculty position.

Applicant must have extensive and current professional background in multitrack studio recording as recording engineer on albums, jingles, films, TV and/or other productions. Must be familiar with 24-track operations, including all signal-processing families; console types, automation methods, synchronization, and session procedures, including preproduction, setups, basic "tracking," overdub and mixdown sessions, studio monitor and tape recorder alignment and calibration methods and procedures, MIDI and synthesizer operations, etc. Knowledge of historical aspects of multitrack recording desirable. Appropriate degrees or equivalent professional training is required. Previous college-level teaching experience highly desirable. Salary and rank commensurate with qualifications.

Berklee College of Music is a private four-year institution with an educational mission of practical career preparation in the various contemporary styles of today's professional music world. The 300 or more internationally respected faculty work with 2900 students from over 75 countries and the U.S.

Please send resume, letters of recommendation and any supportive materials with application by **MAY 15, 1989** for a **SEPTEMBER** starting date to: **MP&E Search Committee, Dept. MM, Office of the Dean of Faculty, Berklee College of Music, 1140 Boylston Street, Boston, MA 02215.**

# Berklee

COLLEGE OF MUSIC

Equal Opportunity Employer

Circle #051 on Reader Service Card

The manual is nicely done and includes not only operational basics but application notes, reference tables and blank charts for notating user harmonies. It provides a listing of all the factory harmony settings; however, since the IPS-33 only displays the selected preset as a two-digit number, some kind of laminated reference card would be nice. The only glitch in the documentation is a warning on page 17 that states: "CAUTION: Pushing the Up (Yes) or Down"; unfortunately, the rest of the note is missing. I have been advised by a DigiTech representative that pushing these buttons will neither cause electrocution nor launch the nation's nuclear arsenal.

Overall, the DigiTech IPS-33 is a winner. It's a versatile, flexible, pitch shifter that sounds good and is suited for studio and live performance applications. It is well worth checking out.

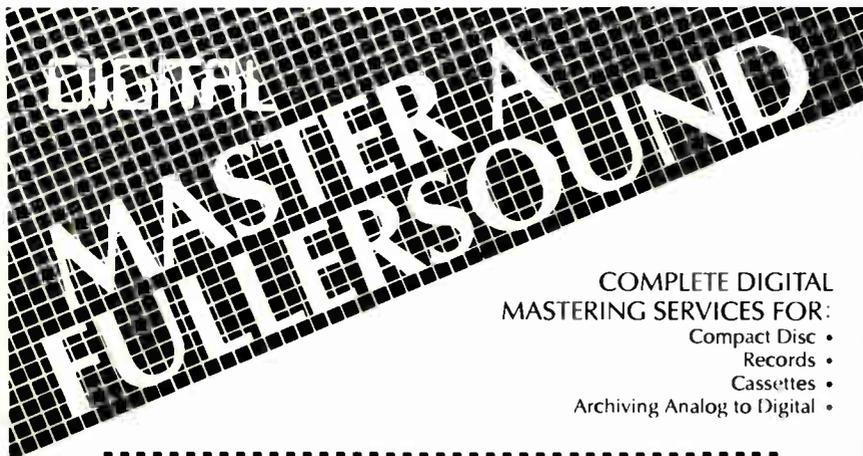
DigiTech, 5639 South Riley Lane, Salt Lake City, UT 84107, (801) 268-8400.

### PRINCIPLES OF DIGITAL AUDIO, SECOND EDITION

By now you've heard of this book's author, Ken Pohlmann. If not, please turn to his "Insider Audio" column in this issue after you read this. If you're an old-time *Mix* reader, then perhaps you remember his first contribution to this mag, a piece speculating on the future of recording studio technology, which appeared in the August '82 issue. Since then, Ken has kept our readers informed on a monthly basis with his long-running column.

Among his other pursuits, Ken heads the Music Engineering Department at the University of Miami and is chairman of the AES International Conference on Digital Audio, held this month in Toronto. Enough history. Besides, if he reads this he'll probably ask for a raise. But he won't, because we still have the original manuscript for his October '84 column and we've threatened to send a copy to his parents.

But seriously, if there was ever a text that deserved a second edition, *Principles of Digital Audio* is it. The original edition debuted in 1985, and digital audio has changed a lot since then. Pohlmann has responded to the challenge by nearly doubling the book's size (it's now 474 pages), expanding sections on some of today's



#### COMPLETE DIGITAL MASTERING SERVICES FOR:

- Compact Disc •
- Records •
- Cassettes •
- Archiving Analog to Digital •

#### NEVE DTC DIGITAL TRANSFER CONSOLE:

All mastering parameters performed completely in the digital domain and fully automated for precise accuracy and repeatability.

Sony 1630/DMR-4000  
Sony 3202 DASH  
Sony 2500 R-DAT  
Sony 601 (Beta/VHS)  
Mitsubishi X-80

**CREDITS:** Dirty Dancing Soundtracks, Eric Carmen, Expose, Will to Power, Eric Clapton, Betty Wright, Bee Gees, Judas Priest, Julio Iglesias, and many more.



FULLERSOUND, INC.

1755 N.E. 149 STREET / MIAMI, FLORIDA 33181 / (305) 945-6697

Engineer: Michael Fuller

Circle #052 on Reader Service Card

hottest topics, such as CD-ROM, CD-I, CD + MIDI, digital audio workstations, magneto-optical recording, ProDigi, DASH and DAT. While the latter was only given a single paragraph in the first edition, the book now includes an entire chapter devoted to this new technology.

Another much-needed chapter, entitled "Coding, Interfacing and Transmission," deals with the basics of modulation coding, followed by a section on digital audio interfacing. This provides detailed information on current interface standards, both in professional (SDIF-2, AES/EBU, MADI) and consumer (SP-DIF) applications, as well as data on direct broadcast satellite (DBS) and cable digital audio/data (CADA) transmissions.

Don't be intimidated by all this if you're a binary beginner or a Nyquist novice. *Principles of Digital Audio* starts off with a well-rounded introduction to the basics, and this is where Pohlmann's teaching experience really pays off for the beginner. Topics are explained in a simple, rational manner that is easy to comprehend, and interesting analogies (just about the only analog things in the book) are used to illustrate various points. One example of this involves the author's 1962 BMW R50/2 motorcycle, which provides a method of explaining numerical encoding/decoding. You'll just have to read the book to see how this is done. I'm not telling.

No matter what your level of expertise, *Principles of Digital Audio* offers an excellent overview of how those ubiquitous zeros and ones affect all our lives. The book is profusely illustrated with diagrams, charts and graphics, simplifying the digestion and absorption of complex topics. Pohlmann's writing style and his knowledge of the subject is simply top-drawer, and should you require more information, an extensive chapter-by-chapter bibliography is included. At \$29.95, it's a best bet. I give it five stars.

Published by Howard W. Sams & Company, a division of Macmillan Inc., 4300 W. 62nd Street, Indianapolis, IN 46268. Also available through Mix Bookshelf, (415) 653-3307 or (800) 233-9604. ■

Mix products editor George Petersen lives with his wife and two musical dogs in a 100-year-old Victorian house on an island in San Francisco Bay.

# Heads & Motors

## Complete Service Including:

- Digital/Optical Inspection
- Full Electrical Testing
- Contour and Gap Restoration
- Comprehensive Lab Report
- Digital/Optical Head Assembly Alignment
- New Ceramic Shaft
- New OEM Bearings
- New Brushes
- Remachine Armature
- Precision Balancing

- Head and Motor Loaners Available
- 24-hour Turn-around Time
- Performance Guarantee On All Work

We Promise The Quality You Demand,  
When You Need It.

Authorized OTARI Service Center • TEAC Parts Dealer

**AUDIO MAGNETIC PROFESSIONAL SERVICES INC.**



224 Datura Street, Suite 614 • West Palm Beach, FL 33401  
1-800-826-0601 • In Florida 407-659-4805

Circle #053 on Reader Service Card

*Exclusively*  
**Neve**

AudioTechniques has been appointed exclusive East coast sales representative for Neve Prism Series modules. Including:

- NEVE Input & Dynamics Module
- NEVE Equalizer Module

Modules are in stock and ready for immediate delivery. Call to set up a demonstration at your studio.

**(212) 586-5989**

**AudioTechniques**

A Manny's Music Company.

1619 Broadway, New York, N.Y. 10019  
FAX: 489-4936

Circle #054 on Reader Service Card



# STARLIGHT EXPRESS

(Editor's note: Although *Starlight Express* closed its lengthy Broadway run a few months ago, we felt the audio aspects of the show were interesting enough to warrant printing this article, completed before the closing.)

Broadway's pursuit of razzle-dazzle and glitz in its musical productions over the last few years has resulted in some spectacular successes, from the seamy ambience of *Sweeney Todd* to the cloying urbanity of *Cats*. Costumes have evolved into elaborate creations, sets have become hydraulic engineering feats. *Starlight Express*, one of a seemingly endless number of brainstorms from British composer Andrew Lloyd Weber (known as the Stephen King of Broadway for his prodigiousness, not his content), is no excep-

## DELIVERS WITH NO STRINGS

**Above:** The company of "Starlight Express" at the Gershwin Theatre.

tion. A nocturnal fantasy about a young boy's hyperthyroid Lionel train set performed on roller skates, the show moves at a blistering pace, making each performance a concentrated effort for cast and crew alike.

As seamless and scintillating as *Star-*

*light* is, it takes a couple of minutes in the seat before the question arises: Where's the orchestra? Rest assured, there is one, sitting in its traditional orchestra pit, playing live and interacting with the performers on stage. The difference here is that the pit is in a rather untraditional location, four stories above the stage, off in a room with flaky beige paint and open lockers. The traditional black tuxes have given way to jeans, running shoes and T-shirts. After two years at the Gershwin Theatre, players' score books lay closed and copies of the *New York Daily News* and Victoria's Secret lingerie catalogs lay open on the music stands as the show goes on.

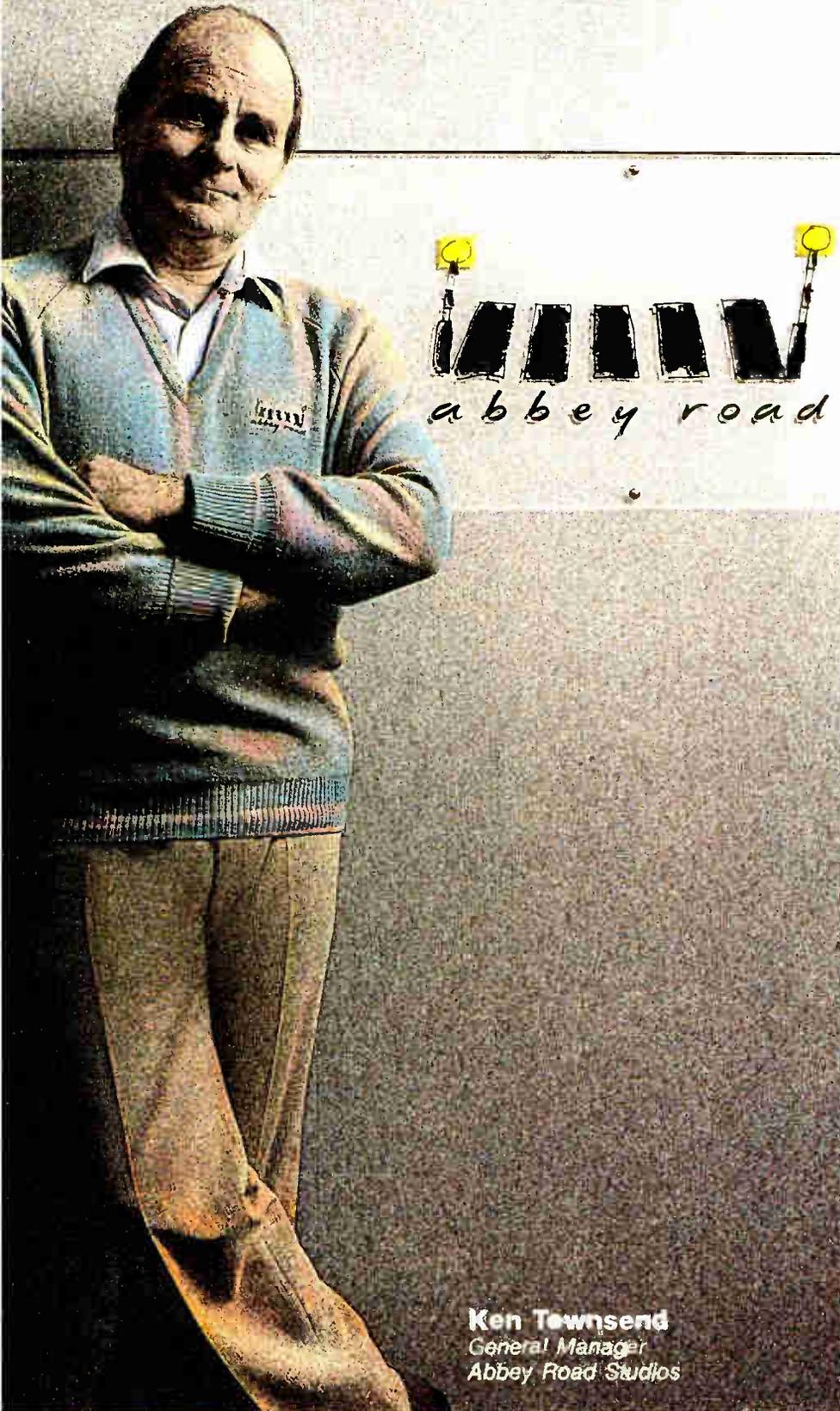
The orchestra should be forgiven its anonymity; it's the only way a show

by Dan Daley

WE CARE

# AGFA

## Did you know Abbey Road Studios uses



**Ken Townsend**  
General Manager  
Abbey Road Studios

Abbey Road Studios—the name evokes a time, an era—the Beatles.

Ken Townsend, Abbey Road general manager, has heard it all—from the record that put the street on the map to Pink Floyd's "Dark Side of the Moon".

Today, in a very modern state-of-the-art facility, Ken hears it on AGFA PEM 469. It's bias compatible and... "It simply sounds better," he says.

Townsend has helped keep Abbey Road on the leading edge for 35 years. He knows that it takes a quality tape to capture a quality performance.

He also knows that Abbey Road makes more than just music.

It makes music history.

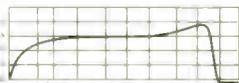
AGFA magnetic tape—from research and development, through manufacturing, to delivery and service—we care!



Agfa Corp., 100 Challenger Road,  
Ridgefield Park, NJ 07660 Telephone (201) 440-2500

# UPGRADE YOUR AKAI S900/S950 TO 16 BITS!

**BEFORE:**

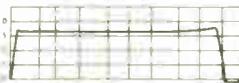


80Hz-16kHz  $\pm$  3dB

72dB dynamic range

68dB signal-to-noise

**AFTER:**



18Hz-18kHz  $\pm$  2dB

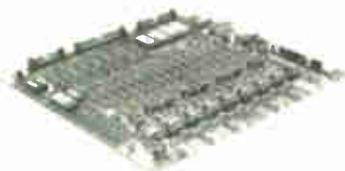
96dB dynamic range

85dB signal-to-noise

**Installs in 10 minutes.**

Supported by Alchemy,  
Sound Designer, Sample Vision,  
GenWave...

**And it will still play your  
S900/S950 samples!**



## THE MARION MS-9C

List Price: \$995

Designed by Tom Oberheim

MARION SYSTEMS CORP.  
1317 Fifth Street, Suite 200  
Santa Monica, CA 90401  
( 2 1 3 ) 4 5 1 - 8 9 1 0

Circle #028 on Reader Service Card

control the channel mutes and direct program change commands via MIDI to seven Yamaha REV7s and a single SPX90 in the house rack. Other out-board equipment includes UREI limiters, several Klark-Teknik 716 digital delays and a few racks of Yamaha equalizers, although the original production mixer, Steve Kennedy, points out that the show's processing is limited and more like an old direct-to-2-track recording session than anything else. BGW amps power the assembly through the 1,800-seat room. Master faders through the VCAs then control the entire mix. Cues sent from the computer set up the mutes and programs for each song in the show. The computerization and the dedicated nature of the signal paths obviate the need for a patch bay. The orchestra is on a larger, 36-input console, while the 20-input Cadac submix desk handles the wireless performer mics, 25 on the performers and two hand-holds for emergency use.

And emergencies pop up frequently, says Hawkins. The actors and actresses are fitted with Sennheiser MKE-2 wireless mics through their hair, wigs or headpieces, as opposed to the more traditional, chest-fitting type. The advantage here is that, given the strenuous nature of the physical show, the panting and heavy breathing that result from exertion aren't picked up through the mics. (If you want panting and heavy breathing, go down the block to where *O Calcutta!* has been revived.) The disadvantage is the toll that sweating foreheads take on the microphones.

"In this system we have more wireless than any show on Broadway has ever had," says Hawkins. "We've lost a lot of them to sweat. You can hear that crackling sound as the stuff eats away the microphone, and you know it's coming. Some performers sweat more heavily than others, but they've devised different methods to cope with it, like wrapping rubber bands and hair clips around the cables to drain it off. The mics go down on stage all the time. That's why we have two backups."

During the performance I attended, one of the actors' hats—and his microphone—went sailing offstage as he rounded a turn. Four stage managers wearing train-engineer overalls (to fit in with the cast) work the deck and hand over replacement mics when the need arises.

Aside from the console computeri-

zation, developed by Martin Levan for the original London production, there is another computer screen connected to an Atari off stage right that holds the wireless display program devised by Maurice St. Sauver for Sennheiser. The 27-unit readout is divided into groups of three, giving audio response and RF response readouts in bar graphs for each mic. *Starlight* was the first show to implement this program. Each of the nine blocks can be individually selected and isolated on screen. All the techs on the wireless crew wear walkie-talkies, and Hawkins can tell them immediately if a performer's mic goes down on stage.

### LIFE IN THE PIT

The remote pit, as noted earlier, is a bit looser than most Broadway gigs. As bass player Jeff Ganz, who has also

PHOTO: MARSHA SWOPE



**Ken Ard is Electra, the electric engine, in "Starlight Express" at the Gershwin Theatre.**

worked *Barnum*, *Dancin'* and *Big River*, says succinctly, "We don't have to wear black."

The pit is a large, low-ceilinged room. The focal point is the conductor's podium, next to which are three black-and-white video monitors of the stage. A single camera is pointed at the conductor and relayed to three monitors hung on the front of the balcony. Thus, the conductor can see the stage action and time music cues, and the performers can see the con-

ductor's motions for their vocal cues. "I look at the screen as though I was looking at the actors," says conductor Jay Alger, "so that when they look at the screen they see it that way. There's a better line of sight here than in many shows. In *Cats*, the horn players are way up on a riser."

There are three click track carts, which the conductor activates at this station. "We found it easier to let the conductor start the click tracks than the sound man," says Hawkins. The musicians work off a four-tiered cue system developed by Formula Sound, Ltd., called Cue 4. Each musician has control over his or her own signal, the rhythm section, the orchestra as a whole and the vocals. Alger, veteran of *42nd Street* and *Cats*, says, "The only real difference in this show is that we're all on phones, as opposed to being all acoustic like most pits. So it was a whole different ball of wax to have this sort of control." The conductor's cue mix also has an additional submix of the click track and the audience response mics, so sufficient time can be allowed for applause before beginning the next number.

The Dynacord drums, the four keyboard stations with two keyboards each, and the bass are taken direct into the board. Two Peavey and GK guitar amps, the percussionist and all horns and woodwinds are miked.

Several tunes in the show use drum machine sequences, but drummer Ray Marchica has to play the ritard endings manually. According to Alger, "There are about three tunes that are on drum sequences. But if someone singing on stage jumps a bar or comes in two beats late, you have to shut off the drum machine and jump to manual fast. When [substitute musicians] play drums, they sometimes hit the wrong sequence, and where you're supposed to have a ballad, you wind up with a big military roll."

There were several experiments in the microphone process. Initially they tried taking the guitars direct, but couldn't get the desired sound. "That's the way Martin [Levan] has always done it on the shows I've worked with him," says Hawkins. "Martin's background was the recording studio, so he uses a lot of studio techniques on the shows. There are [Electro-Voice] RE20s on the brass, and a lot of expensive studio mics that usually aren't used on Broadway are here."

In the rear of the room is a vocal booth holding four background sing-

## At Martin, you're buying more than just a box.

At Martin Music Technologies, you'll find the same low prices as everywhere else. Only here, you'll be glad to know, there's more to MIDI than the usual cardboard box, a receipt and "have a nice day."

First, our product experts will get you acquainted with the keyboards, sequencers and software in our state-of-the-art MIDI showroom.

Then you'll learn about Martin's top-notch technical support and service staff. You'll even see the largest audio parts department in New York. It's all part of Martin's 20 years of experience serving the recording industry.

What it adds up to is a total commitment to you and your music.

So why just settle for a bargain in a box? For the same price, you can have all of Martin Music Technologies.



423 WEST 55TH STREET NEW YORK, N.Y. 10019-4490  
(212) 541-5900

Circle #029 on Reader Service Card

## THE BIG "IF"

**IF** you're not earning at least \$10,000 a month in  
your recording studio,

**YOU NEED THIS BOOK!**



Al Stone's *Complete Business Plan* "could become to studio owners/managers what John Woram's *Recording Studio Handbook* is to engineers"

—Mix Magazine (Dec. 88)

- **IF** you operate a basement 4, 8, or 16-track studio,
  - **IF** you're a synthesist with a midi set-up,
  - **IF** you're just getting started,
- or
- **IF** you're running a big room but not making the profits you want

**GET YOUR HANDS ON THIS BOOK QUICK!**

**CALL OR WRITE FOR  
FREE BROCHURE  
1-317-776-9909**

Or to order:  
Send \$75.00 (plus \$5.00 shipping/handling)

**TO:**  
C.A.S. Productions  
377 Hall Court  
Noblesville, IN 46060  
(Indiana residents add 5% sales tax)



Acct. # \_\_\_\_\_



Exp: \_\_\_\_\_

If using Credit Card, your signature please \_\_\_\_\_

Circle #030 on Reader Service Card

# Cal Switch

We Carry  
The Nations Largest  
Switch Inventory  
also  
Wire and Cable  
Indicator Lights  
Meters  
Electro/Mechanical  
Components

VALUE ADDED SERVICES  
In-House Capabilities:  
Assembly  
Modification  
Engraving  
Tampo Printing  
Hot Stamping

## CAL SWITCH

California Switch and Signal Inc.  
13717 S. Normandie Ave.  
Gardena, Calif. 90249

Visit Us At NSCA Booth # 506  
(213) 770-2330

Circle #031 on Reader Service Card

# BRING STUDIO RECORDING HOME ON VIDEO !

"I wish I had something like this  
when I was learning the ropes."

- George Petersen, *Mix Magazine*  
(see review in March issue)

Now you can learn how to shape your sound the  
way you want with 3 ground-breaking new videos  
from *First Light* !

- > SHAPING YOUR SOUND  
WITH MICROPHONES
- > SHAPING YOUR SOUND WITH  
EQUALIZERS, COMPRESSORS & GATES
- > SHAPING YOUR SOUND WITH  
REVERB AND DELAY

Filled with live musical examples, computer anima-  
tion and the teaching of sound recording wizard  
Tom Lubin, these tapes let you simultaneously see  
and hear how each sound is captured.

Each 80 minute video comes with a reference manual and  
index. For more info or to order yours today, call or write:

First Light Video Publishing  
(800) 777-1576 • Inside CA: (213) 467-1700  
374 N. Ridgewood Pl., L.A. CA 90004

Circle #032 on Reader Service Card



PHOTO: MARSHA SWOPE

The company of "Starlight Express" at the Gershwin Theatre.

ers who pad and fill out the vocals on stage. Because the skaters are so busy skating, it helps to have a cleaner vocal feed to fatten things up, notes Hawkins. They also add unseen harmonies to solo performer parts.

From the point of view of the audience, the lack of an orchestra in front of the production means one other traditional aspect of Broadway productions is missing: the sound of the orchestra warming up before the show. From up in the pit, the vibe is more like that of a recording session than a show. (Interestingly enough, *Starlight Express* has not recorded a cast album. Several of the songs from the show, however, have been released on a pop record created by Weber and Phil Ramone.)

The signal from the pit is routed down to console then back to the cue system, the split going from console to cue and then to the house. "It's another way of checking that everything is working," says Hawkins. "If they don't hear themselves, then there's something wrong between their mic and me, or between me and them."

### A VERY STRANGE THEATER . . .

The house speaker system is centered around the larger Meyer MSL 3s at the rear of the stage, on either side of the proscenium. These, along with four Meyer UPAs, are dedicated to the orchestra and also act as monitors for the performers, since there are no other stage monitors. On the moving hydraulic bridge there are three more

UPAs, and above the exit doors are two UPAs for sidefills. Under the stage itself are four Meyer subwoofers. Bose 101s under the balcony are used as delay speakers. In addition, BES 300 styrofoam speakers are lined up along the theater's sides. These are fed by two AKG mics located on the balcony to pick up room ambient sounds and are used mainly during the race sections of the show. They come into the console through the six Yamaha 406 mixers, which are also used to sub-mix the band. Five small front-fill speakers on the base of the stage give the front rows a feeling that all the vocals aren't coming from the side. Underneath a signpost in the set is a Hot Spot monitor for the paddock seats, which are enclosed on the stage itself.

Each set of speakers in the house has its own equalization. Hawkins calls the Gershwin, built in 1972, "a very strange theater. There are lots of little hot and dead spots around the room. It sounds completely different in one place from another, depending upon where you sit. The best spot in the room is where I sit," she adds with a laugh. "New theaters just never sound as good as the older theaters do. For some reason they've lost that acoustic sound." ■

*Dan Daley is a Mix contributing editor. He has been barred from Broadway for life after he distributed pamphlets containing the solution to The Mystery of Edwin Drood during the first act.*

Processing in the **DCE** stereo **Digital Compressor/Expander** is performed entirely within the digital domain, thus avoiding conversion degradation and ensuring transparent processing of digital recordings.

The **DCE's** compressor section offers special processing characteristics ranging from mild compression or **AGC** action all the way to *no-artifact* "**zero attack time**" peak limiting. The unit's independent expander may provide complementary noise reduction or special processing effects.

Simple, intuitive control of the **DCE's** processing power is achieved by use of only 3 push buttons and one rotary knob. The unit's high-visibility LCD provides confirmation of all operating modes and parameter settings. Several factory presets are available for a quick start, and all dynamics settings may be stored for later retrieval in one of **99 user preset locations**. All parameter settings and presets may be modified, stored, or recalled in real time without "glitching" or other undesirable audible artifacts occurring.

While the **DCE** offers enhanced control over traditional processing parameters such as attack time, release time, threshold (via the **SETPOINT** adjustment) and gain, it also possesses the unique ability to vary the percentage of processed and unprocessed signal at its output (via the unit's **MIX** control). This feature allows you to further refine the desired processing to impart more or less aggressive implementation.

In addition to the straightforward front panel controls, the **DCE** may be remotely controlled by RS-422, RS-232, or MIDI format controllers.

The **DCE** readily accepts input from SDIF-2, SDIF-3, and P digital format devices, as well as others. An optional analog interface is also available.

Thanks to the **DCE**, you are no longer required to degrade the quality of your digital program by converting to analog simply to perform compression or expansion. Now, you are truly capable of taking your sound to the highest quality level.

# TAKE YOUR SOUND TO THE HIGHEST QUALITY LEVEL WITH THE VALLEY DIGITAL COMPRESSOR/EXPANDER!



**VALLEY**  
INTERNATIONAL, INC.  
P.O. Box 40306 • 2817 Erica Place  
Nashville, Tennessee 37204  
(615) 383-4737 • FAX (615) 269-5441

EXPORT: Global Representatives Inc.

(201) 492-8140 • FAX (201) 492-2566 • Canada: Erikson, Quebec (514) 738-3000 • Vancouver (604) 438-9212 • Toronto (416) 764-6350

by Mark Herman

# SOUND REINFORCEMENT NEWS

By purchasing the entire assets and trade name of **J.C. Sound & Lighting Inc.** (Fort Lauderdale, FL), **Turn of the Century Productions** of St. Petersburg, FL, served notice that it has become a major player in the Southeastern sound reinforcement, lighting and staging market. J.C. Sound & Lighting Inc. is now a subsidiary of Turn of the Century Productions and has recently relocated to

**Heiler** says, "We are now a full service production company with staging, full lights and sound, backline gear, roofs and trucking. The reason the two companies will make a great combination is because J.C.'s roofs, stage design and truck fleet are exceptional. And TOTCP's strength is the quality of our lights and sound. Now we're gearing up for national touring."

QSC 3800 and 3500 models. . . Its most recent tour was the Midwest leg of **Gregg Allman's** tour (see "On the Road") that finished in February. (One of Allman's dates was held in -38° weather in St. Paul, MN. Brrrr!) . . . TOTCP was responsible for full production of the eight-day **Carnival Latin** festival held at Miami's **Orange Bowl** in late February. This warm-weather salsa party was well attended and featured some innovative lighting techniques as well as extensive sound.

**Jacobs Audio** (Colorado Springs, CO) started as a live recording sound company in 1981 and soon moved into the sound reinforcement market doing installations, symphony work and concerts. The company developed a proprietary main P.A. speaker cabinet before hooking up with UK speaker manufacturer **Martin Audio**. Last April it became the first American company to purchase a Martin F2 speaker system. Jacobs bought 32 flyable Martin F2s and eight S2 dual 15-inch subwoofer bass cabinets. The F2 is a two-box system featuring full-horn modular loading. The top box is a rack-mount-style enclosure, capable of accepting several different horn and driver combinations to fit various applications. Owner **Chris Jacobs** says, "The extraordinary thing about the F2 is that you can change it around, so you don't need to buy an extra system for smaller shows." For crossovers, the Martin MX4 controller (no processing here), with variable attack and dual release limiters designed to prevent excessive amplifier clipping, is utilized. Two MX4s are needed to



## Turn of the Century Productions' setup at the new Miami Arena, a 12,000-seat venue

northwest Miami in a new 10,000-square-foot facility. Traditionally, most of J.C.'s work has been in the Miami area, so business should be enhanced by the move. J.C. Sound's owner, **John Clark**, decided to sell the company for personal reasons, not because it was in danger of going out of business. TOTCP vice president **Jeff**

TOTCP's main P.A. is known as the Overture system. It has also added J.C.'s proprietary JBL-loaded P.A. system, as well as an 80-box "W" system. The expanded console inventory now includes a Yamaha PM3000, Ramsa WR-S840, Midas Pro 40 and a late-model Soundcraft 800B for the house mix, along with a Ramsa WR-S840, Midas Pro 40, Soundcraft 500 and a modified TAC Scorpion 40x12 for the stage. Amplifiers are primarily Crest 8001, 7001, 4001, and

# IMPROVE SPLIT CLUSTER QUALITY



Several major contractors have independently discovered an exciting new application for the Orban 275A Automatic Stereo Synthesizer—eliminating acoustic phase cancellation in split cluster sound systems. By splitting mono audio into 15 frequency bands and then sending them alternately to the left and right clusters, our 275A makes the output of the two clusters sufficiently different to completely avert phase cancellation and acoustic comb filtering at any location in the clusters' coverage area.

Compelling, yet natural stereo synthesis is a bonus. So, not only does the system have greatly improved frequency balance, but it also presents a sense of space and depth unachievable by other means.

A recognition circuit automatically distinguishes between mono and stereo source material, and automatically activates the synthesizer when mono is detected. So, in a split cluster-designed theater, performing arts center, church, or other live venue in which both mono and stereo material exist, *all outputs* will be stereo.

Call or write today for more information about Orban's quality-enhancing 275A Automatic Stereo Synthesizer.

## **Orban Associates**

645 Bryant St.,  
San Francisco, CA 94107  
(415) 957-1067  
Telex: 17-1480  
FAX: (415) 957-1070



run the system in stereo. Jacobs Audio just ordered 12 of the new Martin VRS1000 one-box, 3-way flying cabinets loaded with a 1,000-watt, 18-inch and a 12-inch super mid compression driver. Recently Jacobs purchased 18 Martin LE400 bi-amped (500 watts) floor monitors. When asked about the LE400's performance, Jacobs replied, "They are probably the finest-sounding monitors I've heard unequalized, and are very comparable to a processed, controlled monitor system."

Power for the main P.A. and monitor systems is supplied by Ramsa amplifiers. "We have 30 of the 9440s and 12 of the 9220s," Jacobs notes. "We really like the idea of the five-year warranty offered by Ramsa for the power amplifiers. In fact, we just ordered 12 more of the 9440s.

"An interesting thing about the 9440 amp is that although it is UL listed at 800 watts into 8 ohms, it

## COMPANY PROFILE:

**Eastern Acoustic Works, Inc.**  
**One Main Street**  
**Whitinsville, MA 01588**

**Background:** Eastern Acoustic Works, Inc. was started in October 1978 by Ken Berger. Engineer and speaker designer Kenton Forsyte was part of the company from the beginning and had previously worked with Berger at Forsyte Audio, a manufacturing company. Forsyte is largely responsible for designing much of the company's past and current equipment. Originally EAW was located in Framingham, Mass. In the past year the administrative offices moved to Jenkintown, Pa., and the factory and sales offices to Whitinsville, Mass., to provide more space for immediate expansion and future growth. The new factory has a 40,000-square-foot woodshop with NC (numerically controlled) routers, table saws and other equipment that make for efficient



and cost-effective manufacturing processes, while another 70,000 square feet is reserved for production and office facilities. "We've grown about 30% to 40% a year," company president Berger says. "In the past our sales were production-limited, but that should change rapidly with our new facilities."

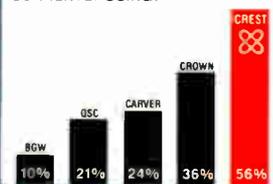
While domestic production and

—CONTINUED ON PAGE 118

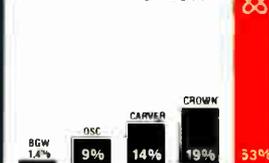
# Benefit from ears of experience.

A recent independent survey\* of the 70 largest U.S. touring sound companies proved conclusively that Crest has become the choice of these professionals.

WHAT POWER AMPLIFIER ARE YOU CURRENTLY USING?



IF YOU COULD UPGRADE ALL AMPLIFIERS TODAY, WHAT BRAND WOULD YOU BUY?



Totals are over 100%: some respondents mentioned more than one brand. \*conducted by Concert Sound Consultants, Julian, CA

Experienced professionals select Crest amps for their proven reliability and sonic superiority—even driving long lines and highly reactive loads. Whenever power is required, from 25/70 volt distribution systems to 2 ohm applications, Crest has the answer.

Benefit from ears of experience. Call today and learn more about the world's finest power amplifiers.

**CREST AUDIO**  
 power is serious business.

Circle #132 on Reader Service Card



Models shown  
 7001 8 ohms 4 ohms 2 ohms/Ch  
 8001 850W 1225W 1400W

\*RMS limited by IMA World Radio History

really delivered 1,000 watts when tested. We are quite pleased with the Ramsa amps and can happily report that there have never been any problems with them—even when run at 4 ohms into the S2 sub-bass bins. Rane MA6 six-channel amplifiers are used for the highs in the monitors. Other than that, the system is completely Ramsa-powered.”

The house mixing console is a new Ramsa WR-S840 with four of the four-in-one submix channel modules, giving them, in effect, 52-input capability. “We do a lot of work with symphonies in this area, and the submix modules are great for that,” Jacobs says. The stage console is a Soundcraft 500.

A Ramsa WR-S840 monitor board has just been ordered and is expected to arrive soon.

Jacobs Audio’s sound reinforcement business includes county fairs, outdoor festivals, mini-tours, national one-offs and extensive symphony work. The company just picked up the **Colorado Springs Symphony** account for the approaching summer season. Last year they worked the eight-week **Ethnic Festival** in Milwaukee, which featured German, Irish, Italian, Mexican, African and Polish music, and plans are to be there again this summer. Recent installation work includes the sound system for **Chautauqua Park** in Boulder, CO.

**Disco Mania** . . . I’m sure all you closet disco maniacs would like to know that 20,000 people of the same persuasion attended the “Club Coca-Cola” Video Dance Party Tour held at the **New Orleans Super Dome** this past holiday season. This benefit for the Special Olympics featured five all-Ramsa sound and video systems and utilized 40,000 watts of power, 40 compact high-end and 60 subwoofer speaker cabinets, and five mixers.

**Sound Force** (Dayton, OH) is a pro audio retailer and regional touring company now in its fifth year of operation. **Jeff Smith** says the breakdown is 40% concert sound reinforcement, 40% retail

# ON THE ROAD

## SOUND COMPANIES, EQUIPMENT, ARTISTS & PERSONNEL ON TOUR

| Artist<br>Sound Company<br>Tour Dates<br>& Region                                                | House Console #1<br>House Console #2<br>Monitor Console #1<br>Monitor Console #2<br>House Crossover                 | Main Speakers<br>Main Speakers<br>Subwoofers<br>Monitor Speakers<br>Monitor Speakers | Main Amplifiers<br>Main Amplifiers<br>Sub Amplifiers<br>Monitor Amplifiers<br>Monitor Amplifiers | Engineers:<br>(B) = band eng.<br>(H) = house eng.<br>(M) = monitor eng.<br>(T) = technician<br>(a) = assistant |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Gregg Allman<br>Turn Of The Century<br>Jan - Feb Midwest                                         | Yamaha PM3000 40x8x2<br>—<br>TAC Scorpion 40x12<br>—<br>BSS FDS 360                                                 | (20) TOC Overture<br>—<br>—<br>R & R Wedges                                          | Crest 8001,4001<br>—<br>—<br>Crest 7001,4001                                                     | Richard Cramer (B,H)<br>Ken Olson (M)                                                                          |
| Benson&Hedges On Ice<br>(with local symphonies)<br>Colorado Concert Sound<br>Sept - Oct '88 U.S. | Midas Pro 40 40x12x2<br>—<br>(from house console)<br>—<br>Backstage                                                 | (48) Community Light&Sound<br>—<br>—<br>CCS Custom                                   | Phase Linear 700,400<br>—<br>—<br>Phase Linear 700,400                                           | John Herchenrider (H)<br>Galen Watts (aH)<br>Dan van der Hoop                                                  |
| Bon Jovi<br>Clair Brothers<br>Jan - June<br>N. America                                           | Soundcraft Series 4 40x16x2<br>Clair Custom 32x8x6<br>Harrison SM-5 32x16<br>(with 16 ch. extender)<br>Clair Custom | (72) Clair S-4<br>—<br>(16) Intersonics SDL-5<br>Clair Custom, 12AM                  | Carver/Clair 2.0<br>—<br>Carver/Clair 2.0<br>Carver/Clair 2.0                                    | Mike Renault (B,H)<br>Rocky Holman (B,M)<br>Jim Devenny (aH)<br>DaveWilkerson (aM)<br>Tom Ford, Forrest Green  |
| Eddie Brickell &<br>New Bohemians<br>Showco<br>March - May<br>N. America                         | Yamaha PM3000 40x8x2<br>—<br>Harrison SM-5 32x16<br>—<br>Showco                                                     | (12) Prism (U.S. leg)<br>—<br>(8) Prism Subwoofer<br>Showco 100                      | Crown PSA-2, MT1200<br>—<br>Crown MA2400<br>Crown MT1200                                         | Greg Smith (B,H)<br>Bruce Thatcher (M)<br>Chris Iacuone (T)                                                    |
| R.E.M.<br>Clair Brothers<br>Feb-May N. America<br>May-June Europe<br>June-Oct N. America         | Yamaha PM3000 40x8x2<br>—<br>Harrison SM-5 32x16<br>—<br>Clair Custom                                               | (48) Clair S-4<br>—<br>—<br>Clair Custom, 12AM                                       | Carver/Clair 2.0<br>—<br>—<br>Carver/Clair 2.0                                                   | Bruce Jones (B,H)<br>Dave Skaff (M)<br>Cliff Atchinson (T)<br>Chris Fulton (T)                                 |
| Luther Vandross<br>Maryland Sound Ind.<br>Feb-March U.S.<br>March-April Europe                   | Yamaha PM3000 40x8x2<br>—<br>Mod. Yamaha PM2000 32x14<br>—<br>House system                                          | House system<br>—<br>—<br>MSI Custom 2x12<br>Meyer UM-1, UPA-1                       | House system<br>—<br>—<br>Crest 7001,4001<br>Crest 7001,4001                                     | Mark Smith (H)<br>Scott Richards (M)<br>Mark Bradley (T)                                                       |

## LIVE · SOUND

sales and 20% equipment rental. Recently the company purchased and moved into a new 10,000-square-foot facility on the south edge of Dayton. Sound Force's main P.A. system is flyable with 16 proprietary, double 18-inch, JBL-loaded, low-end cabinets and 16 high-pack, trapezoidal enclosures loaded with two E-V Pro Line 15-inch speakers, a 2-inch E-V DH1A driver with a titanium diaphragm, and a Renkus-Heinz CBH500 horn. The company is in the process of building eight more cabinets to bring the system up to 24 stacks. The monitor system is composed of proprietary bi-amped wedges with a single E-V Pro Line or JBL 2225 15-inch speaker and a 2-inch driver. For power amplifiers, Sound Force uses QSC Series Three 3800s and 3500s, as well as the MX1500 and MX2000 models. Smith raves about QSC reliability: "We have never, in five years, had a single QSC amplifier fail. And we have nearly 40 of them." A Hill 24x4, a Soundcraft 400 24x8 and

an Allen & Heath SRM 24x8 monitor console make up most of the mixing console inventory. Thirty-two and 40-input consoles are leased when necessary. Sound Force is looking to buy a 40-input console soon.

In the past, Sound Force has handled a number of mini-tours with national jazz artists in the Midwest. The company also picks up most of the national one-offs that pass through Dayton, and works many county fairs in the summer. Local work includes a contract with Montgomery County for all the county-sponsored outdoor summer shows held in **Courthouse Square** in downtown Dayton; a monthly lecture series at **Wright University**; a monthly show with the **Dayton Philharmonic** at the 5,000-seat **Dayton Convention Center**; concert reinforcement at the large **Hara Arena**; and three stages featuring various types of artists at the annual **Troy Strawberry Festival**. Recent equipment purchases include six Telex wireless

microphone systems.

**Can you name** the company that provided sound reinforcement for President **George Bush's** victory party in New Orleans following his Republican Party nomination? If you guessed **Sound Chek** you win a trip for two to the heart of Cajun country! Located in Metairie, LA, just outside New Orleans, Sound Chek got its start at the New Orleans World's Fair in 1984 as an audio service and repair outfit. One of its duties included maintaining a **Clair Brothers** sound system in an Australian pub. Sound Chek quickly developed a good reputation, and soon after the fair closed it opened a store dedicated to sound engineering, pro audio retail sales, and later, lighting and MI retail sales. About 30% of its work is now sound reinforcement, with most of the audio work concentrated in the active local festival and club scene surrounding New Orleans. It is one of many sound companies that annually works the famous **New Orleans**

# ROOM TO BOOT.



That's just one of the things you'll get when you put our new **M4 CoAx** to work in a cluster or any other permanent installation. Along with the space-saving nature of this new concept, which coaxially mounts any of our PC400 Series horns directly into the center of a matching M4 PC1500 Series horn, you'll also improve directivity performance at the mid-to-high crossover point. In fact, if your crossover and delay systems are done right, you just might think you have a single loudspeaker capable of going from 200 Hz to 20,000 Hz.



*The M4 was the first, and it's still the best in its class. Now it just got even better!*

## Community

PROFESSIONAL SOUND SYSTEMS

333 East Fifth Street • Chester, PA 19013 • Tel. (215) 876-3400 • FAX (215) 874-0190

Circle #063 on Reader Service Card

World Radio History

**Jazz and Heritage Festival** held every spring. Seven stages outdoors and four stages indoors operate seven hours a day during two separate three-day weekends. Other yearly work includes the **Festival Mensaje** Latin festival for the city of New Orleans and the Cajun sausage **Andouille Festival** in La Place, LA. Sound Chek has supplied engineers for the **Neville Brothers** and currently provides sound support for **Tipitina's** nightclub, as well as other small clubs in New Orleans. Other work includes audio for the **New Orleans Summer Pops** festival. Sound Chek's owners are **Chris Brown** and **Michael Paz**, while the primary mixing engineers are **Mike Montero** out front and **Steve Riolo** on stage.

Sound Chek was the first company to bring Turbosound cabinets to the New Orleans area. Its Turbosound main P.A. system consists of 12 TMS-3s and six TSW-124s, along with eight TMS-4s. The monitor speakers are Turbosound TMW-212 and TMW-215 wedges powered by QSC Series Three 3800 and 3500 amplifiers. Main P.A. power is provided by Crest 8001 amplifiers. Chris Brown describes his initial reaction to the high-power Crest amplifier: "When we tried the 8001 for the first time, it sounded as though someone had peeled a layer of cellophane off the front of the speakers. There was a noticeable improvement in our speaker performance." House consoles are a Yamaha PM3000 40C and a TAC Scorpion 32x8x2 with an 8x8 matrix. The primary monitor console is a TAC Scorpion 40x12.

**Colorado Concert Sound** (Longmont, CO), a regional sound reinforcement company with ten years experience, specializes in symphony orchestra work in the Rocky Mountain area, with occasional national work. According to spokesperson **Dan van der Hoop**, about 50% of the company's business is symphony-related. "We've worked with the Colorado Springs, New Mexico, Denver, Tucson, San Diego, Philadelphia, Baltimore, New York City and Dallas symphonies in the last year," he says. "All of our equip-

ment is geared for quality audio reproduction. Our P.A. speaker system is an all-horn, 4-way, loaded Community Light & Sound system with TAD drivers. We can comfortably do symphonies for up to 6,000 people and rock shows for 15,000. For low-mids we use MB60s. Every horn is a Community product." The symphony work peaks in the summer but runs throughout the year. Colorado Concert Sound also works jazz festivals and scattered rock shows. Consoles include a Midas Pro 40 house desk and a Backstage 16x6 monitor console. "For symphony dates there is no need for a large monitor console," van der Hoop states. Phase Linear 700, 400 and 200 amplifiers are used to power the house and monitor speaker systems.

Van der Hoop says that "with the symphony you must have good-quality equipment and engineers who know what a symphony should sound like. Many of our engineers have actually played in an orchestra and already have an understanding of each instrument and the overall sound. Many rock engineers tend to think they are qualified to mix these shows, when in reality, symphonies are quite different." Miking techniques are also different for symphony work according to van der Hoop. "We do a lot of things that are not typical of what other sound companies do when it comes to miking. We mic each individual instrument, not just a group or area. Typically, we'll put out 50 to 80 microphones on stage, with some of them Y'd together. Many sound companies provide considerably fewer microphones." Even mixing techniques are different: "With a symphony you tend to work the submasters a lot when mixing the sound because of the varying emphasis on certain instrument groups, like strings, winds and percussion, at different times during a piece."

Recent work included dates with **Benson & Hedges' On Ice** show (see "On the Road"), which featured a live symphony orchestra performing along with numerous Olympic ice-skating stars in San Diego, Dallas, Philadelphia,

## Peabody Conservatory of Music

### Recording Workshops

#### INTRODUCTION TO MIDI AND COMPUTER MUSIC

June 26 - 30

Geoffrey Wright

#### WRITING PROFESSIONAL MIDI AND COMPUTER MUSIC SOFTWARE

July 3 - 7

Edmund Pirali

#### BASIC RECORDING TECHNIQUES

July 10 - 14

Alan P. Kefauver

#### SIGNAL PROCESSING AND RECORDING SYSTEMS

July 17 - 21

John Eargle

#### RECORDING STUDIO AUTOMATION AND MIXDOWN

July 24 - 28

Alan P. Kefauver

#### AUDIO POST-PRODUCTION FOR VIDEO AND FILM

July 31 - August 4

Stuart J. Allyn

All workshops are M-F 9 a.m. - 4 p.m.  
Tuition is \$300 per workshop and graduate credits are available.

For further information:

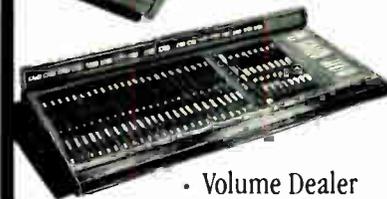
**Peabody Conservatory of Music**  
1 E. Mount Vernon Place  
Baltimore, MD 21202-2397  
(301) 659-8136

Circle #061 on Reader Service Card

## AUDIO-VIDEO-MIDI



- Studio packages
- Automation
- Synchronization
- Digital FX
- MIDI Work Station



- Volume Dealer
- Leasing Available
- Experienced Staff
- Buy/Sell/Trade New and Used Equipment

**(602) 267-0600**

**EAR PROFESSIONAL**  
AUDIO/VIDEO  
2641 EAST McDOWELL  
PHOENIX, ARIZONA 85008

Circle #062 on Reader Service Card

Baltimore and New York City. In March CCS traveled to Vancouver and Saskatoon, Canada, to do shows for **International Management Group**.

**MP Productions** (Little Rock, AR) is a mid-sized sound company that, according to owner **Mike Pope**, "had a great year in '88. We stayed very busy, averaging 35 shows a month." They combine touring, one-offs, summer festivals and industrial work. "What we like best are theater tours where we do total produc-

tion and general contracting for sound, lights and trucks," states Pope. . . Last year they toured with **The Church, Freddy Jackson, Gene Loves Jezebel** and **REO Speedwagon**.

**Ambassador College** (Pasadena, CA) recently purchased a 40-channel Soundcraft 8000 for the school's sound reinforcement system. . . **Wizard Lighting and Sound Equipment** (Cortland, NY) just bought a 40-channel Soundcraft 500 stage console.

Finally, we'd like to note that the company identified last month

as **Golden Gate Sound** is in fact called **Golden State Sound**. We apologize for the slip-up. ■

*Some of the data in this column and "On the Road" chart is based on information provided by the companies.*

*Address all correspondence and photos to: Mix Publications, Sound Reinforcement Editor, 6400 Hollis St. #12, Emeryville, CA 94608.*

—FROM PAGE 114, EAW

sales are on the rise, EAW's foreign markets are beginning to make headway as well. Its new distributor in Japan—Onkyo Pokki Ltd.—has begun moving large quantities of KF850 and KF600 cabinets. Japan is rapidly becoming EAW's largest market outside the U.S. Significant growth is taking place in other Pacific Rim countries as well.

A separate enterprise in Europe manufactures EAW equipment under license. Called EAW Europe, this new operation has facilities in Holland, England, Germany and Poland. The company hopes the Poland plant will be a gateway to Eastern Bloc countries and the Soviet Union. EAW products are distributed through a limited range of professional audio dealers. All loudspeaker products carry a six-year parts and labor warranty; electronic products assume two years parts and labor.

A brief chronological rundown on EAW product developments begins with the introduction of the BH212 bass horn in 1978, followed by the MR109 and MR102 mid-bass horns in '79. EAW entered the pro touring field in '79 with the CS3 system deployed by Nashville's Carlo Sound. The first compact, full-range MK models were then released for portable, pro stage, instrument monitor applications. These were early versions of the current KF Near-field Series models. The large and somewhat cumbersome KF800 cabinets followed, but soon gave way to the KF550, which had the same mid and top section as the KF800, but was optimized for packaging.

—CONTINUED ON PAGE 185

# McCAULEY

... Pure Performance

The quality of McCauley loudspeaker systems goes far beyond cabinetry and exterior decor. Inside every McCauley system is what our company is all about, the driving force behind every system—its components. Not just a collection of pieces and parts that you find in so many other companies' boxes, but a precisely matched set of transducers that have

been designed, engineered, and manufactured at McCauley and by

McCauley to deliver a signature of pure professional performance to the term "State of the Art."

To experience McCauley speaker enough for some; claim puts you in a performance." Tame the Series 800 system at an authorized McCauley dealer. Call or write the factory for detailed product specifications.



the sheer power of a system is reward but to lay your world of "Pure Performance."

**McCauley Sound, Inc.**

13608 94th Ave. E., Puyallup, Washington, USA 98373 (206) 848-0363

# JBL Has High Performance Audio Down To A System.



A chain is only as strong as its weakest link. High performance audio systems, in fixed installations or on the road, follow the same principle. We've focused our attention at the component level, because to build great systems you have to build great components.

Regardless of the size of the hall, signal delay is inevitably required. And, every array needs to be tightened up to some extent. The 7922 gives you both long delays for large halls and the highest resolution of any professional delay for precise cluster driver alignment.

Both outputs from the 7922 provide 390 microseconds to 328 milliseconds of audio delay, adjustable in 10 microsecond steps, giving you finite control in 3mm (1/8 inch) increments.

The 7922 includes a linear phase anti-aliasing filter and 16 bit linear conversion at a 50 kHz sampling rate. For a smoother, cleaner, more faithful



*With our proprietary linear phase anti-aliasing filter, 16 bit linear conversion at a 50 kHz sampling rate and 4 times digital oversampling D/A converter system, you get a smoother, cleaner, more faithful reproduction of the sonic picture.*

reproduction of the sonic picture, we've built in a 4 times digital oversampling filter and D/A converter system. This results in flat frequency and  $\pm 5^\circ$  linear phase response from 20 Hz to 20 kHz.

The 7922's internal micro-processor and our exclusive headroom control and indicator will greatly simplify set-up of delay times and input/output levels. Your settings are permanently stored in non-volatile memory without the need for batteries, and the 7922 automatically bypasses itself upon removal of power.

Putting the new 7922 Digital Audio Delay and other high performance JBL components to the test is as simple as stopping by your authorized JBL UREI dealer.



**JBL**

**UREI  
ELECTRONIC  
PRODUCTS**

JBL Professional  
8500 Balboa Boulevard, Northridge, CA 91329

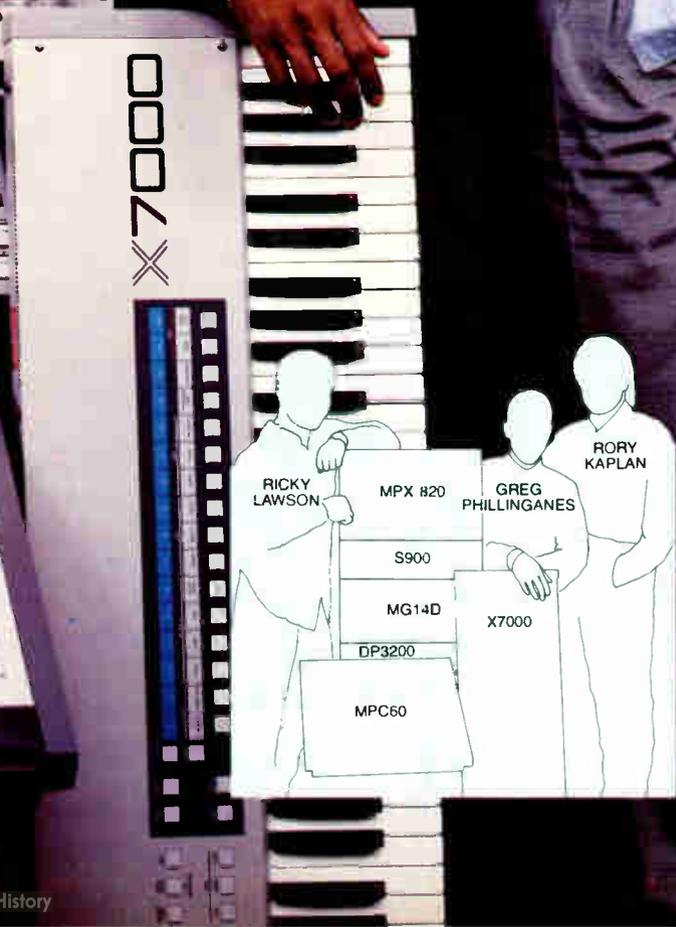
© 1988 JBL Professional A Harman International Company

# AKAI

## AND MEMBERS OF THE MICHAEL JACKSON BAND

### GREAT MUSICIANS USE GREAT EQUIPMENT!

See your local AKAI  
dealer for details on  
all this great AKAI gear.



**AKAI** professional

P.O. BOX 2344 • FORT WORTH, TEXAS 76113-2344

PHONE: (817) 336-5114

FAX: (817) 870-1271 • TELEX: 163203 IMCTX UT

Circle #124 on Reader Service Card

World Radio History

## SOUND ON STAGE

# TEAMWORK: THE SECRET TO GRAMMY'S SUCCESS

by Mike Klasco

The ultimate high-wire act in televised sound reinforcement is the National Academy of Recording Arts & Sciences' Grammy Awards. The production of the Awards is extremely intricate, with complex interactions occurring between performances, lighting, video effects, stage sets and television cameras. Sound must be mixed for the house, the stage foldback and, of course, the television audience. While other events share these elements, the Grammy Awards takes these aspects to an intense plateau.

The Grammys represent the entire gamut of music—from classical, pop, rock and R&B, to heavy metal—requiring diverse miking techniques and an extremely wide range of sound levels and arrangements. The rapid change of performers and the continuous podium parade of award presenters and accepters combine to make the Grammy Awards a most challenging mixing job. On top of that, sitting in the audience is the



Dizzy Gillespie adjusts his mute at rehearsal.

cream of the recording industry's performing and production talent. If this isn't enough to raise the adrenaline level of the production crew, then the 70 million television viewers will.

## THE VENUE

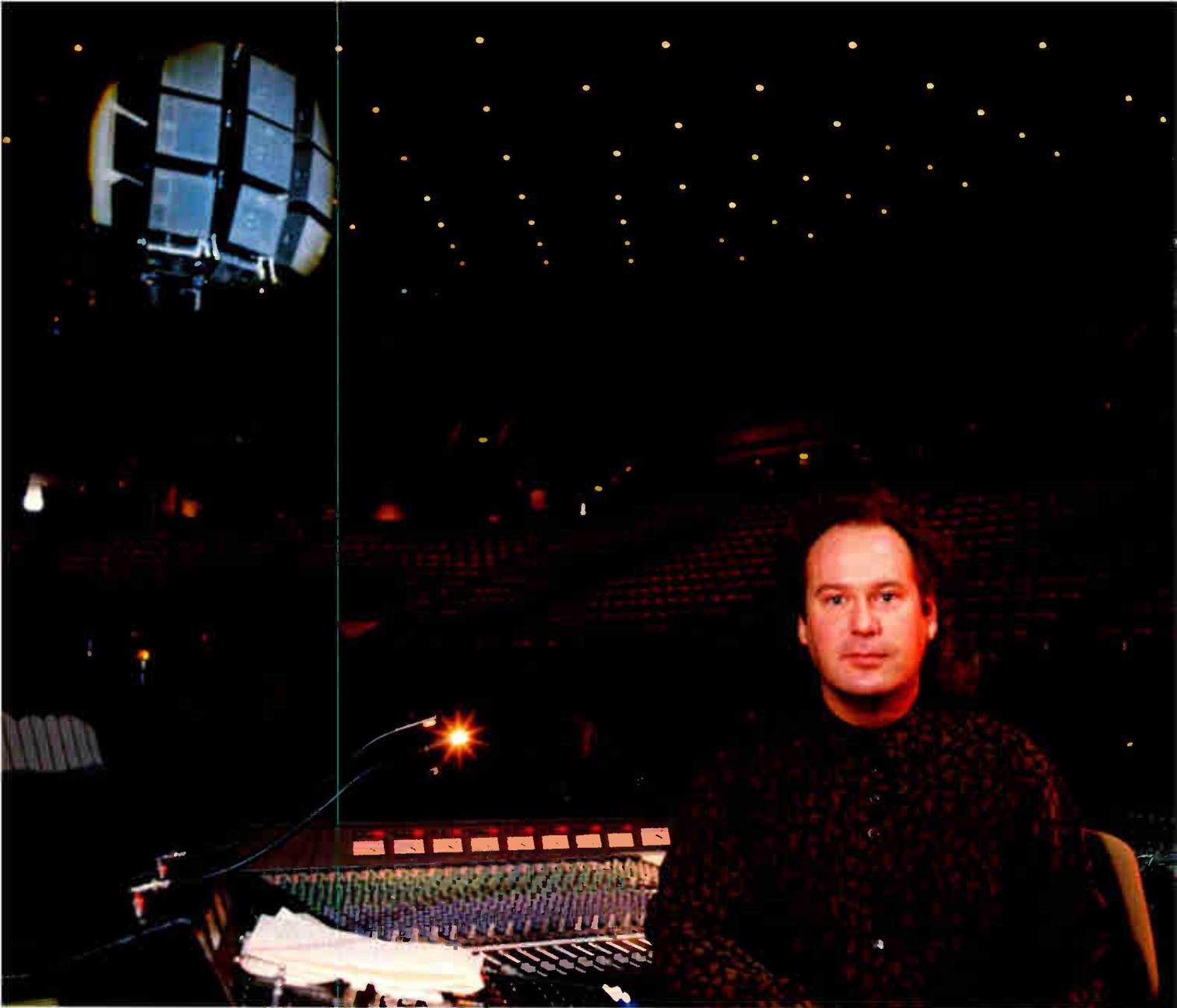
Hollywood's Shrine Auditorium is often used for television productions, including the Academy Awards and American Music Awards. Four thousand of the 6,500 seats are located in the enormous, steeply raked, balcony area. The facility is comprised entirely of hard surfaces, and the parallel construction of a large portion of the side walls results in acoustics that are quite live and not easily controlled. The stage is unusually wide—almost 100 feet—which partially accounts for its popularity with television production crews.

## THE SOUND SYSTEM

The sound reinforcement system brought in by NARAS for the event

Melissa Ethridge and show director Walter Miller.





## Rob Colby, sound engineer for Prince, recognizes a breakthrough when he hears it.

That's why he's using the Electro-Voice MT-4 Manifold Technology® concert sound system on the recent world tour.

Rob says:

"The MT-4 was the only system we looked at that has the power to punch out over the audience level in full-bandwidth fidelity, without blare or distortion. Also, it never requires major equalization changes from one venue to the next. Plus, it's so compact, we can fit an entire PA into one truck. It configures well, and provides predictable, coherent aiming night after night. It's a fantastic system."

Small enough to conform to the most stringent restrictions, compact enough to array and transport

easily, yet powerful enough to deliver unequaled acoustic performance, even at incredible SPL.

The MT-4 is the system that's shattering sound-system myths around the world. Give us a call today for more information.

*Transcend the sound barrier with Manifold Technology.*



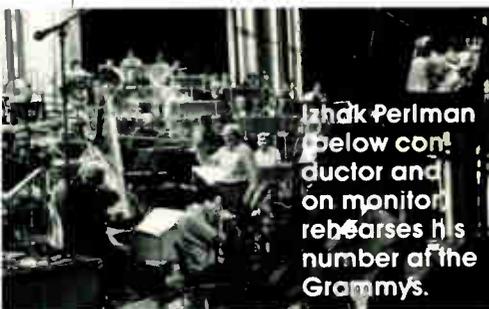
**Electro-Voice®**  
a MARK IV company

600 Cecil Street  
Buchanan, Michigan 49107  
Phone: (616) 695-6831

In Canada: Mark IV Audio, Inc.  
345 Herbert St., Gananoque, Ontario K7G2V1  
Phone: (613) 382-2141

## LIVE · SOUND

was designed and provided by Burns Audio, a rental house in Southern California's Sun Valley. The company, strong in televised sound reinforcement, is on a roll: it handled the American Music Awards in January, Grammy Awards in February and Academy Awards in March.



Izhak Perlman below conductor and on monitor rehearses his number at the Grammys.

Mix-wise, Yamaha PM3000 and Ramsa SR840 consoles were used for the Grammys, with Apogee Sound cluster and sidefill speakers. In addition, a supplemental Yamaha 1516 was used for the Metallica performance. This console arrangement allowed for very little changeover between acts.

The main front cluster hanging over the center of the proscenium consisted of three Apogee 3 x 3, one box speakers with a 60 x 40 pattern. On either side of the stage were two additional 3 x 3 speakers, positioned on risers six feet above the deck, and two dual 18-inch AE-12 subwoofers. Front-fill speakers included four AE-3 systems located along the front of the stage. A supplemental cluster was used for the balcony area. The balcony sidefill consisted of a pair of Apogee AE-5s, microprocessor-controlled "black boxes" that are growing popular because of their relatively small size, high output and superb sound quality. To speed up and simplify installation, Burns Audio designed special hanging hardware for the Apogee speakers. And Apogee's new "Correqt" on-site, real-time equalization system was used.

Crest models 8001 and 4001 were used in the 3 x 3 tri-amplified system, while 4001s powered the bi-amped AE-5s. The power amplifiers are electronically coupled to the signal processors, which provide the frequency

and phase equalization, electronic crossover and driver protection functions.

The design philosophy of the electronically coupled Apogee loudspeakers is based on the concept that a large, concert-sound speaker is rarely used as a stand-alone device. From the initial design and development stage, Apogee engineers planned for the speaker to be used in various array configurations, including "tight packed" horizontal arrays, "vertically stacked" arrays with the mid-range horns coupled together and "horizontal splayed" arrays where the rear of the enclosures touch and the front edges separate.

Following the Awards telecast, Ken De Loria, president of Apogee, explained, "A specific fall-off characteristic at the fringe of the intended coverage angle is necessary to achieve smooth acoustic addition with adjacent segments of the array. The 3 x 3 has been designed to optimize the fall-off characteristics of its beam width, so it provides minimal interference when adjacent enclosures are splayed at varying angles. When they're used in 'tight packed' configurations, they also provide excellent acoustic addition for very high array performance.

"The loudspeakers' time/phase response parameters play a major role in the performance characteristics of an array," continued De Loria. "Many [technical] papers have been written about the transfer functions of multiple-element loudspeakers and the effect of their crossover network's phase characteristic on off-axis frequency response. Similarly, the time/phase response of a single-loudspeaker system forms the basis for its behavior in an array, and the subsequent radiation patterns developed. This is one of several areas where the processor-based design allows us much greater control over conventional designs in tailoring the array's response to produce the desired end result."

The real story of the audio mixing for the Grammy Awards is best told by the people involved: mix-

# CASE AND CABINET HARDWARE

## OVER 300 DIFFERENT PRODUCTS IN STOCK



### 3 DEPOTS

#### NEW JERSEY:

29 B. Ethel Avenue  
Hawthorne, New Jersey 07506  
Telephone: (201) 423-4404

#### DETROIT:

2144 Woodbridge Avenue  
Detroit, Michigan 48207  
Telephone: (313) 961-9111

#### LOS ANGELES:

1111 Rancho Conejo Blvd.,  
Unit 303  
Newbury Park, California 91320  
Telephone: (805) 499-5932

### PENN FABRICATION (USA) INC.

CD-LIKE  
QUALITY  
ON CASSETTES!!

Clarity

REAL-TIME  
CASSETTE DUPLICATION

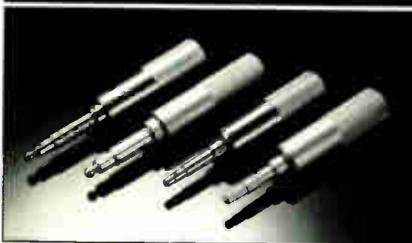
"THE  
ULTIMATE  
RESPONSE"

... Find Out How ...

Post Office Square  
Waterville, ME 04901  
1-800-458-6405  
207-873-3911

Circle #073 on Reader Service Card

CLEAN  
PATCH BAYS  
NO DOWN  
TIME



**VERTIGO BURNISHERS AND INJECTORS  
RESTORE ORIGINAL PERFORMANCE  
TO YOUR PATCH BAYS**

**VERTIGO 1/4" TRS AND TT BURNISHERS:**  
Each used to eliminate noise caused by contamination  
of main contacts in normal patching situations

**VERTIGO 1/4" TRS AND TT INJECTORS:**  
Each allows injection of cleaning solvent in breaking  
contacts (normals), to eliminate intermittency that  
occurs when patch cord has been removed

**STILL ONLY \$29.95 Ea.** (Cont USA)  
Please write for additional information and order form  
Used by Professionals Worldwide Patent Pending

**VERTIGO RECORDING SERVICES**

12115 Magnolia Blvd #116  
North Hollywood, CA 91607  
Telephone: (818) 907 5161  
Telex: 5106006748 VERTIGO RECRD

Circle #074 on Reader Service Card

## LIVE · SOUND

ing engineers Steven Kibbons, Rich Breen and Patrick Baltzell; house mix supervisor Leslie Ann Jones, who oversaw balance and levels; and sound designer Murray Allen. Foldback was handled by Michael Abbott, assisted by Kevin Wapner. Ken De Loria controlled the "Correqt" tuning system, while Tim Chavez and Michael Cooper served as audio utility personnel. Here's a sampling of their comments and impressions.

### STEVEN KIBBONS—HOUSE PODIUM MIXER

Kibbons has been involved with the Awards 13 of the last 15 years, in different positions with different companies. He says the Awards are difficult at best, as the performers are never seen in order, even in the final run-throughs. Kibbons actually does only about four house mixes a year, his primary work being a TV sound mixing engineer.

Kibbons was happy with Murray Allen's system of using three house mix engineers—one for the podium, a second for the vocals and a third for the instruments. The podium mixer handles the presentations, special material, tape play, video play and scripts. "One guy will miss something, but with three people on the team, far more time is available for detail, such as careful equalization. I have been involved with all the awards shows at one time or another, and only at the Grammys is the house sound reinforcement considered as important as the TV send. [Strings, bass, woodwinds and reeds were fed to the TV truck first, where the tracks were submixed by Ed Greene and sent back to the house and monitors; this meant the house and monitors were totally dependent on this submix. Audio tape playback also came from the TV truck.—Ed.]

"Another real benefit," added Kibbons, "was that Patrick [Baltzell, house music mixer] was also involved in the system's design and engineering. All the bugs were out before we started."

Although the sound was good last year, the big difference this year, according to Kibbons, was

the tuning system: "Last year was the first time we tried a new type of tuning system, using the music rather than pink noise to flatten the response and filter out peaks. The system seemed to work, but there were conflicts over control of the sound between the mixing engineers and the tuning system operator. Sometimes the sound quality would shift, but there would be no explanations. I say, 'If it ain't broke, don't fix it!'

"This year another system was used, again using the music signal as the source, but this time the rapport between the crews was excellent. Ken [De Loria] worked side by side with us, not just by the book. He took the time to explain, step by step, then got my opinions and participation. The Correqt is an excellent system; it made my job work. The first few days were spent getting rid of the vestiges of feedback, and on the last two days we got the podium position to sound as good as it could. Ken took the tuning process much further than before with his ears and discretion. I am sold on this type of system."

Kibbons also mentioned that this year he did not have to fight for podium gain. Things did not have to be "pushed" so the audience could hear. The spoken word is always a problem, especially when the person at the mic is not a strong speaker. The sound system used to be tuned only for music; but speech is 60% of the content of the show. This has been understood, so the audience no longer has to fight to hear.

### PATRICK BALTZELL—HOUSE MIXER FOR MUSIC

Baltzell, a Burns Audio staff member, is an experienced mixing engineer. He says the Grammy crews' team approach "gave us time to listen to and worry about the music, and the time to correct any problems. We had six days for rehearsal, plus the day of the show."

The new tuning system was important to Baltzell, and he previously wondered if the use of more than 60 parametric filters would have an adverse effect on the sound. But he felt that in a

space as live as the Shrine, freedom from feedback was a much greater factor in creating intelligible sound than other considerations on a live TV show: "The primary goal is not [to have a] flat response, just to eliminate feedback. Podiums under clusters are tough, especially with 60% of the show coming from the podium, sometimes with the speaker two feet off-axis from the mic. The room had enormously long decay time—below 200 Hz—and as the system approaches feedback, the reverb time gets even longer. The Correqt system let us control the cluster EQ first, cutting the regeneration time of the room/sound system interaction. This let us cut back on the EQ needed to reduce feedback on each mic channel. Once the podium sounds great, everything else holds up."

Ancillary equipment included a Lexicon PCM70, Yamaha REV7 and some Yamaha REV5s, an SPX90, 14 limiters (mostly dbx 160 Series) and a dbx de-esser.

#### **RICH BREEN—HOUSE VOCAL MIXER**

Rich Breen has participated in the Grammys for the last four years in various positions. He works for Universal Chicago Corporation as a recording engineer, mostly on albums. This is the only live show he mixes. Discussing the importance of rehearsals and how dependent the show is on the stage crew, he said, "The audience hears the end result of 30 people doing their job. The performers and stage sets are constantly changing. All you can do is set levels during rehearsals, take notes, and during the show when the music comes up, refer to your notes, preset the levels and hope the stage crew put the mics in the right place. You get only one shot with each band, which is out there for maybe three minutes.

"We also depend on the monitor guys to not interfere with the broadcast sound," Breen continued. "The talent always wants them to pump more level, but the TV send will pick this up. The house level is also a problem for the televised sound, because if we

have too much level in the house, the acoustics will take off. And the people in the TV truck hear only what is on their mics.

"The entire house was never covered this well, and we never had so much control over the feedback problem. The sound was very satisfactory, the bass was real good, the tonal quality was fine. This was the best sound I have heard at the Grammys."

#### **LESLIE ANN JONES—HOUSE MIXER/OVERALL SOUND**

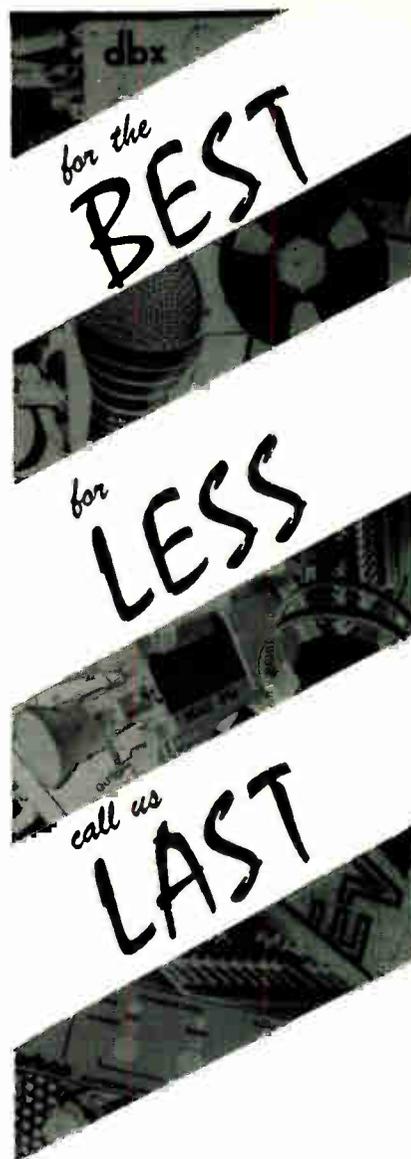
This was Jones' first year working with the house sound team. As a member of the Recording Academy and former chapter president, she attended the last two Grammy shows in L.A. and New York, and felt the house sound could be greatly improved. This year, Murray Allen asked Jones—a Capitol staff recording engineer—to join the team to supervise the balance and levels. "In the past, I always felt that certain things were missing from the house mix, especially in the band balances," said Jones. "Someone would be playing a part that was an integral part of the song, yet it couldn't be heard. The Grammy audience at the Shrine is composed of artists, producers, songwriters, engineers—everyone involved in the process of making a record. They expect to hear each performer as if they were doing their own concert. It doesn't really matter to them that you have just mixed Leontyne Price and the next act is Metallica. It's important that they hear each artist the way they are supposed to be heard.

"That's what we tried to do this year, and I feel we succeeded. Patrick and I also worked very hard to make sure the coverage throughout the house was as even as possible. As far as I know, no one complained that they couldn't hear."

#### **MIKE ABBOTT AND KEVIN WAPNER—MONITOR MIX**

Michael Abbott handled the fold-back with the assistance of Kevin Wapner. This was Abbott's first time at the Grammys, and he was surprised at the number of run-

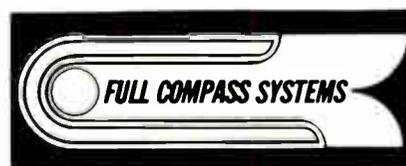
—CONTINUED ON PAGE 181



*Audio & Video  
Equipment & Supplies*

Toll Free  
**(800) 356-5844**

Wisconsin: (800) 362-5445  
Consultation: (608) 271-1100  
Fax: (608) 273-6336



6729 Seybold Rd. Madison, WI 53719

Circle #075 on Reader Service Card

## TROUBLESHOOTING

# AC POWER DISTRIBUTION

Power distribution is not very glamorous, trendy or fun. But it is extremely important in the operation of a professional sound system. Getting maximum, clean, stable power to amplifiers, mixing consoles, signal processing devices and backline equipment can make a noticeable difference in the audio quality of a live performance. Don Pearson, president of Ultra Sound (San Rafael, Calif.), is regarded in the sound reinforcement industry as an expert in power distribution and sound system operation.

**Mix:** What are some of the main points to consider for professional sound reinforcement power distribution?

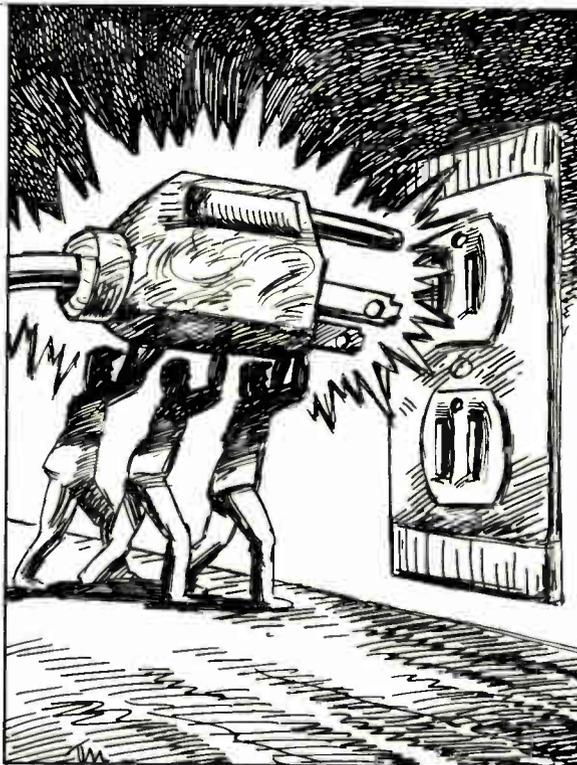
**Pearson:** The first thing is to consider the source. Ask yourself these questions:

*Where is the power coming from?* Most buildings used for concert situations have a disconnect box installed for the sound system that is usually on its own transformer.

*What else is booked up to the same side of the transformer that you are on? Are the lights booked to the same point as the sound system? Are you sharing the load?*

Certain things like cash registers and vending machines have a propensity to glitch into the AC neutral, which could conceivably come up in the sound system.

*How far is the power source from the stage?* The voltage drops as the wire length increases. Therefore,



the wire gauge should be considered. Charts in numerous publications show the correct lengths and wire gauges needed.

*Where does the ground go?* Normally the ground lug is attached to the chassis of the power distribution panel. I've found that it is better to find a convenient cold water pipe to hook to, so that you are running a system where the neutral and ground are separate. Although the neutral is tied to the ground at some point by the power company, this still reduces the potential for ground loops.

One thing to consider about cold water pipes is that some buildings have replaced worn-out sections of the metal pipe with plastic (PVC). Try to use a fire depart-

ment standpipe, if possible, to avoid this problem.

*What phase are you using?*

There are typically two kinds of power: 3-phase (2-leg, 5-wire) and single-phase (4-wire). If you are using a 3-phase system and you have a single-phase distribution system, one of the legs will be unloaded, which means there will be an imbalance between the legs that appears as current on the neutral. It is important to balance the load because it could blow up the power transformer that is serving you.

**Mix:** How do you balance the different legs?

**Pearson:** Use an amp clamp (inductively measures the current passing through) and monitor the current on the two differ-

ent phases and the neutral. If you find an imbalance, move some amplifiers over from one phase to another to obtain an even balance. When you run an unbalanced load, you wind up limiting the current your amplifiers produce because they can't receive enough AC to get to full power. The net effect is the equivalent of adding speakers to the sound system without doing anything but changing the AC. You are enabling the power amplifiers to go to full power because they are supplied the maximum AC voltage and current from the source.

**Mix:** What about breaker boxes?

**Pearson:** The standard UL duplex is rated at 15 amps. Often, people will plug two amplifiers into one

# IF YOU THINK YOU'VE SEEN IT ALL...

## CARVIN

1989 PRODUCT CATALOG

## ... LOOK AGAIN

1989 continues our commitment to provide you with the very best in state-of-the-art Pro Sound equipment, handcrafted Guitars and Basses, and full range Instrument Amplification.

For those of you who know us, you're already aware of our standards of quality and value. If you're not familiar with us, this is a good chance for you to find out what sets us apart—and what we can do for *you*.

That's why our new 1989 catalog is yours—free.

So before you decide on a sound system, guitar or bass, or instrument amplification, see where the new standard of American excellence is being set—CARVIN.

FACTORY DIRECT SALES:  
1155 Industrial Ave., Dept. MX96  
Escondido, CA 92025

HOLLYWOOD STORE:  
7414 Sunset Blvd.  
Hollywood, CA 90046

### CARVIN

1155 Industrial Ave., Escondido, CA 92025

Free Catalog

Send \$2 for 1st Class Mail

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

MX96



## LEARN THE ART OF RECORDING

LEARN CREATIVE RECORDING SKILLS ON THE LATEST EQUIPMENT AT THE LEADING SCHOOL FOR SOUND ENGINEERS, PRODUCERS AND STUDIO MUSICIANS. WITH OR WITHOUT PREVIOUS EXPERIENCE, IF YOU'RE SERIOUS ABOUT A CAREER IN RECORDING, OUR 'HANDS-ON' TRAINING PROGRAMS CAN GET YOU STARTED AND PUT YOU AHEAD. FOR FREE BROCHURE, PLEASE CALL OR WRITE TODAY.

THE  
RECORDING  
WORKSHOP

### THE RECORDING WORKSHOP

455-X MASSIEVILLE ROAD, CHILLICOTHE, OHIO 45601  
(800) 848-9900 (614) 663-2544

OHIO STATE BOARD OF SCHOOL AND COLLEGE REGISTRAR ON #80-07-0696T

Sale!  
Sale!  
Sale!



R-DAT  
LIQUIDATION  
1988 Models  
Call For Details

\*The TANNÖY 6.5's just won the coveted TEC award for most innovative transducer design.

## Rarely!!

Rarely will CSE Audio discount new products this drastically. But our goal is to be the nation's number one dealer for TANNÖY 6.5's!

Even at a list price of under \$300 per pair... we believe there is simply no better sounding monitor for the money.\* Call us, we'll give you an even better price!

TEC  
TECHNICAL ELECTRONIC CENTER

AWARD WINNER 1988



CSE Audio Inc.  
1200 Scottsville Road  
Rochester, New York 14624  
716 • 436 • 9830

Mastercard & Visa Welcome  
Lease/Purchase programs available

duplex. The *entire* duplex is rated at 15 amps, not each socket. If two amplifiers drawing ten amps apiece are connected, which is typical, then a 20-amp breaker will tend to pop—which leads to people installing a 30-amp breaker to protect what is really a 15-amp circuit. This can be dangerous.

Special motor-starting breakers are available that have a longer time constant before popping the breaker. So, for example, if the kick drum and bass guitar hit a strong beat together, the huge surge generated will be spread out over a longer time period and not pop the breaker like a normal 20-amp unit would.

**Mix:** How important are connectors, and what type do you recommend?

**Pearson:** One of the big power losses is through the connectors. How well they mate affects the current across them. A poor connection is evident when arcing, black and pit marks can be seen. We use Camlock connectors for all our main power feeds, and 0000 welding cable because it has many strands of fine wire rather than a few strands of thicker wire, making it flexible and easily coiled. We use Hubbell brand twistlocks on all our distros that go out to the quad boxes.

**Mix:** What about ground on the stage power boxes?

**Pearson:** We use isolated ground outlets. Typically, when you screw the duplex into the metal chassis box, the frame of the duplex connects through the U-ground hole and becomes part of the metal ground. This can be a problem when a quad box is placed on a metal drum riser and someone sets a guitar amp on the same metal riser. Now all the metal is tied together and a ground loop is created. You can buy outlets where the U-ground is separate from the chassis to provide insulation. These cost around five times as much as normal outlets, but they greatly reduce the hum level.

**Mix:** Are there any other simple tricks to consider?

**Pearson:** Another thing is to constantly go through and tighten the screws, perform regular mainte-

# 90 ways to depart from the straight and narrow.



Prepare to expand your horizons. With the Yamaha DEQ7, the completely digital equalizer. With not one but 30 different EQ and filter configurations, in stereo.

To be specific, it has 11 graphic EQs, four parametric, three tone configurations, five band pass/band reject filters, six dynamic filters and one multi-notch filter configuration, plus up to 738 ms of delay per channel.

But, in the Yamaha tradition of never leaving well enough alone, we did some expanding of our own.

Like memory. The DEQ7 has sixty user-programmable memory locations, so you can store and title your favorite curves, and recall them any time manually or via MIDI. There are digital I/Os for direct connection to other digital components, as well as analog inputs and outputs.

Since we're on the subject of output, it's equally important to mention that, in the opinion of many critical users, the DEQ7 produces an open, natural-sounding EQ. Which means that you can create extreme EQ settings without creating extreme anxiety.

The Yamaha DEQ7 Digital Equalizer.

It'll throw you a few new curves. Catch one at your nearby Yamaha Professional Audio dealer.

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

**YAMAHA**  
Engineering Imagination™

# NEW DYNAMIC DIMENSION.

## The DC 24 Multi-Function Dynamic Controller.

Other designs give you "either/or." The DC 24 gives you "AND": Two limiters AND two compressors AND two gates AND a built-in crossover, all in one compact unit.

**A NEW SERVO-LOCK LIMITER DESIGN** means more transparent limiting no matter how drastically the program material changes from moment to moment. Our servo-locking circuit is smart enough to continuously maintain just the right ratio necessary to guarantee flawless control.

**SEPARATE COMPRESSION CONTROLS** allow you to dial in the perfect amount of dynamics you want, independently of the limiter. Extremely low-noise, low distortion VCAs guarantee a level of performance that will satisfy the most demanding recording or broadcast requirements.

**THE INDEPENDENT EXPANDER/NOISE GATES** can be adjusted to tighten percussion or turn off background hum and noise, without effecting any of the other dynamic control operations.

**A BUILT-IN 4TH ORDER CROSSOVER** transforms the DC 24 into a bi-amp crossover/processor all-in-one. You can minimize feedback, maximize speaker protection and save considerably on equipment costs. Or use the DC 24 as a band-split mono controller to obtain more consistent broadcast or recording signal strength with less "pumping" and "breathing."

Why put up with the expense and bulk of handling 3 or 4 conventional units? Get greater precision and more versatility with fewer side effects, all packed into a single compact unit. Experience a whole new dimension in dynamic control from Rane.



# RANE

Rane Corporation  
10802-47th Ave. W. Everett, WA 98204  
(206)355-6000

nance and inspection on connectors and such, because of the constant vibration encountered while traveling. Avoid using Loctite or similar products on current-carrying connections because they provide unnecessary insulation.

**Mix:** Do certain venues sound better because of their power, and what can the venue staff do to improve it?

**Pearson:** Definitely, some sound much better due to their superb power source. Also, if you measure the voltage at the end of the wire near the stage and find it lacking, the house electrician can often move a tap on the transformer up to the next higher position to give you higher voltage.

For example, 110 volts can be boosted to 118 volts. Something to consider is that guitar players look for a lot of sustain in their amps (especially tube). Sustain is a trade-off between distortion and level. If you have low voltage, the sustain isn't there, so the musician turns up the volume to try to

achieve more and actually makes it even worse. For the Grateful Dead, we use Techni Power—motor-controlled servo variac devices that can raise or lower the voltage. This allows you to set the voltage to any level you want, and

## An unbalanced load can blow up the power transformer that is serving you.

as the demand changes it maintains that output level. By increasing the voltage so that they get the sound they want at a lower volume, you can actually get the band to turn down their overall stage volume.

**Mix:** What is Ultra Sound's power distro like?

**Pearson:** Basically, it is a Cam-lock patch bay with a 400-amp, 3-phase main breaker on the input and 100-amp, 3-phase breakers on each of the outputs. We also have a metering system to monitor the voltage between either of the phases and neutral, and we can look at the current on any of the inputs or outputs. There is also a meter on the ground to monitor the ground current.

**Mix:** What do you do when a musician has a piece of equipment with a grounding problem?

**Pearson:** The best you can do is float the U-ground and put it through some sort of isolation transformer or direct box.

**Mix:** Any final words to sum up reducing noise, hums and other problems?

**Pearson:** In quieting the sound system, while no single thing you do is usually that noticeable, when you solve a lot of little problems and conditions, the whole effect is a lot greater than the sum of the parts.

—Mark Herman

**"Moving a large mass of air accurately is what I expect from a subwoofer system. It's obvious to me Intersonics designs their subwoofers with that very thought in mind. With a band the caliber of Def Leppard, nothing but ServoDrive would cut it."**

— Robert Scovill, Sound Engineer/Mixer

DEF LEPPARD

Moving a large volume of air accurately is exactly what we had in mind when we designed the servomotor driven subwoofer.

Because of our expertise in high intensity acoustics, we recognized that the basic voice coil design had inherent limitations when large excursions and forces were desired. This realization led us to develop a new and fundamentally different transducer system, the patented ServoDrive loudspeaker (SDL).

The servomotor permits a linear excursion limited only by the radiator suspension, and delivers forces far exceeding those of a voice coil. As a result the SDL's can produce more acoustic power, to lower frequencies, than would be possible for a similar sized voice coil subwoofer system. Further, the SDL's produce less harmonic distortion at twice rated power than most conventional systems do at a small fraction of their rated power!

When operated at full rated power, voice coil speakers typically lose 50% to 75% of their acoustic output and have a significantly altered frequency response due to the effects of power compression. The SDL's incorporate a patented power cooling system which virtually (less than 1 dB) eliminates power compression and provides significant thermal "headroom." This permits large peak powers to be handled without sonic compromise. The SDL's are horn-loaded and use computer-assisted cabinet designs. Thus they have better directivity than vented boxes, especially when multiple units are close-coupled.

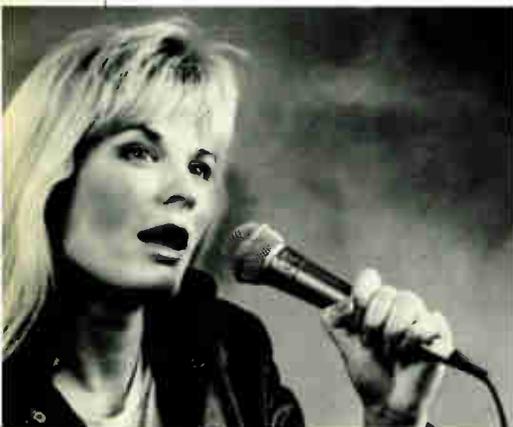
The result of these developments is a truly outstanding pro subwoofer system.

When you want the audience to say "WOW!" you want "The Best in Bass"!!



INTERSONICS, INC., 3453 Commercial Ave., Northbrook, IL 60062  
312-272-1772, (FAX) 312-272-9324

## SOUND REINFORCEMENT PRODUCT NEWS

**Shure Beta Series Mics**

Shure Brothers of Evanston, Ill., has introduced a new series of low-impedance, dynamic mics, including the Beta 58 (for vocal music applications) and the Beta 57 (for instrumental miking uses, such as drums, cymbals, horns and amplifiers). The transducers in the series utilize neodymium magnets, providing improved output-sensitivity performance and excellent gain-before-feedback capability due to their true supercardioid polar response that is said to remain uniform at all frequencies. The Beta Series features smooth frequency response with upper mid-range presence boosts specifically tailored to either vocal or instrumental applications. The Beta 58 is available in two versions: the 58C has a chrome pop grille, while the 58M features a matte-grille finish. The Beta 58C, 58M and 57 each carry a list price of \$258, including carry bag and stand clip holder.

Circle #166 on Reader Service Card

**E-V Theater Surround Speaker**

Designed specifically for motion picture surround applications, the TS8-2 from Electro Voice (Buchanan, Mich.) provides the in-theater response specified in ISO Standard 2969 (Curve X) without external equalization, and is approved for THX™ surround applications. The speaker is pre-drilled with T-nut for easy installation with Omnimount™ 100 Series

brackets and offers consistent off-axis response for a diffuse sound field required in surround applications.

Circle #167 on Reader Service Card

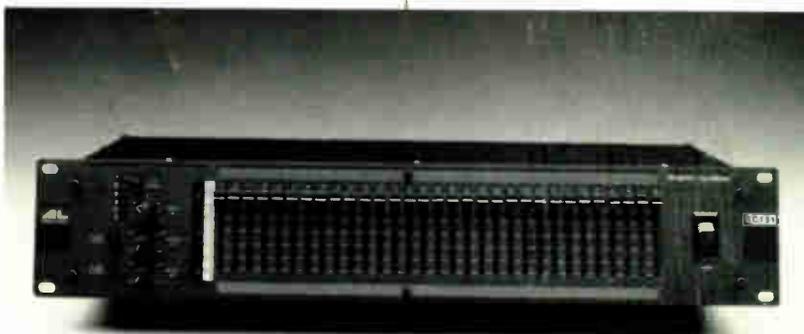
**Rack-Mount Cable Tester**

The Missing Link CT/8 (\$299.80 list) from Conquest Sound (Tinley Park, Ill.) is an AC-powered, audio/video cable tester in a single rack-space unit. The CT/8 tests any and all combinations of 5-pin DIN (MIDI), XLR, ¼-inch, ⅜-inch, RCA, BNC, UHF and F cables, for shorts, open circuits and cross-wiring. An LED display indicates the cable's status, including case ground conditions for XLR and DIN types.

Circle #168 on Reader Service Card

**Intersonics Contra-Bass**

The Contra-Bass from Intersonics of Northbrook, Ill., is a compact cabinet that can reproduce extremely low frequencies. Measuring only 18 × 22.5 × 37 inches,

**Audio Logic SC131 ▲ Room EQ**

The SC131 from Audio Logic (Salt Lake City, Utah) offers 31 bands of cut-only room equalization for professional sound reinforcement and contracting applications. This two rack-space unit features 45mm long-throw sliders, switch-selectable -10 or -20dB attenuation range, LED level indicator, rotary low- and high-cut filters and bypass switches. Barrier strip, ¼-inch TRS and XLR connectors are provided, and the SC131 interfaces readily to either balanced or unbalanced systems. The SC131 lists at \$565, and a security panel is optional.

Circle #169 on Reader Service Card

the unit has a flat frequency response from 16 to 125 Hz (±2 dB) and can produce 114 dB at 16 Hz with a 250-watt input. The Contra-Bass uses two active, 15-inch drivers powered by a high-tech servomotor and two passive radiators with an excursion capability of more than 1.5 inches. The system's ServoDrive concept eliminates voice coils and magnets by using a low inertia motor to move the cones of the active drivers in proportion to the input signal and current. The Contra-Bass weighs 120 pounds and includes black carpet covering, carrying handles and dual banana input connectors.

Circle #170 on Reader Service Card

by Craig Anderton

# MORE NEWS FROM NAMM

**L**ast month we talked about some of the latest developments in synthesizers at the 1989 Winter NAMM show in Anaheim. But there was a lot more going on than synths, so let's look at some other hot products.

Line mixers are becoming more and more popular, and several manufacturers came up with variations on a theme. The most talked about was the Alesis 1622, with 16 channels (eight with XLR mic inputs), six sends, four stereo returns and EQ, all in a rack-mount package. At \$799, you might wonder what the catch is, but there doesn't seem to be any—just clever engineering. Rane showed its SM82 Stereo Line Level Mixer, which for \$599 includes eight stereo inputs (16 inputs total) with stereo aux sends, panning and expandability to 16 stereo inputs. This sounds like just the thing for keyboard players who are tight for space.

Passac introduced the Unity Eight, an 8 × 4 mixer with two separate stereo

send/returns, panning and a minimum 95dB signal-to-noise ratio. At \$445, it combines quiet operation with cost-effectiveness. Even Tascam got into the keyboard/line mixer game with the MM-1 (\$1,099), which includes programmable muting that can be stored internally and recalled under MIDI control.

Another hot trend was new and improved equalizers. Rane showed a prototype of their MPE Series of programmable equalizers, although they aren't slated to arrive in stores until sometime next month. Featuring constant-Q design, the line includes a single-channel version with 28  $\frac{1}{3}$ -octave bands, stereo version with 14  $\frac{2}{3}$ -octave bands, and four-channel with seven one-octave bands. All use MIDI control to select one of 128 program memories, but, even better, individual sliders can respond to MIDI controller data.

Alesis showed the MEQ-230, a dual

—CONTINUED ON PAGE 186



Alesis kept the prototype of its Model 1622 mixer under glass, but deliveries are slated to begin this summer.



**The Feelies (left to right): Dave Weckerman, Stanley Demeski, Bill Million, Brenda Sauter, Glenn Mercer.**

## THE FEELIES TAKE THEIR TIME

by Hank Bordowitz

The Feelies could be described as legendary. Calling them eccentric wouldn't be too far off base either. The Jersey-based band has been together for nearly a dozen years, but have just three albums to their name, including their latest A&M release, *Only Life*. They tour only occasionally and rehearse even less. Clearly, they do not operate like an average rock band.

"Our music is ultimately simple," says guitarist and songwriter Billy Million. "We do a lot of thinking in the studio, also. Until you start recording the instruments, especially the guitar, you have to think as you're going along, 'Is this the right sound for this song?' You never know. A lot of our stuff is very live sounding, and we never know how

it's going to come out. We usually think that things like harmonics that are coming off the guitar can't be captured on tape. So you can't really pre-plan, or work something out. You just have to do it."

Part of The Feelies' distinctive sound is the imaginative blending of acoustic and electric guitars and the patterns and drones that they set up. Another is the percussion—unusually untrembly, with scant use of cymbals.

"We've always used heavy percussion in our music, and it came about simply because we were playing two Fender guitars at the time, and the sounds, with the cymbals, were canceling each other out," Million says. "So we took the cymbals out, and we started writing parts on percussion to kind of help the dynamics of the song along."

Although they've been together over a decade, they spent six years between recording contracts. Not that they weren't busy during the off time, but even people located near The Feelies' home base didn't hear

much about them.

"I had a child," Million says. "That happened right after *Crazy Rhythms* came out, and we were having trouble with our record label at the time, Stiff Records, and we basically became disillusioned with the business of making music. And what with having the child, we basically just tinkered around.

"Glenn [Mercer, singer/songwriter/guitarist] and I did the music for a movie called *Smithereens*, which was Susan Sideleman's first film. [They also performed during the high school reunion scene in *Something Wild*.] We did a lot of 4-track recording for that. We did that under very harsh circumstances. I was working really long hours at a job at the time. I would get home at 10 or 11 at night, and Glen would be waiting there for me, and we'd go down to my basement. My basement wasn't even heated, so we'd be down there in these heavy overcoats until about three or four in the morning, trying to put together some music for this film.

"It was a kind of leisurely six years," he continues. "We weren't in any hurry to do much. Then The Feelies went on a tour of the U.S. in 1984, and I guess that was how the band started to get more motivated, so to speak. [Their second album, *The Good Earth*, came out two years later.] But we've never been a band to keep track of a time frame, like we have to do this in that amount of time, or whatever. We do it when we get to it."

And The Feelies also like to maintain control over their records at every stage. "We felt that if we couldn't produce a record, or co-produce it, at least, we probably wouldn't make that record," Million says. "We still feel that way today. We just wouldn't end up recording. We like to have hands-on with the mix. Our songs are so simple—two chords, maybe three chords at most—so the *sound* is everything to us. I think with our band, everybody has arrived at a similar musical sensibility, so we can rely on our drummer not to go into a big Keith

# The Essentials Defined.

Two-channels of SR and A-type noise reduction.

Three cards available: Cat. No. 300—SR and A-type module; Cat. No. 350—SR module only; and the Cat. No. 450—A-type module only.

Multi-turn level controls on each channel for setting all levels.

Balanced transformerless input and output circuits.

Provides SR users with accurate verification of decode calibration levels and playback frequency response.

Relay-controlled "hard" bypass of all circuitry.



Generates Dolby tone for A-type or Dolby noise for SR; also activates Auto Compare mode for SR alignment.

Allows checking of the non-decoded signal from tape during recording or playback.

Four element LED calibration displays.

Front panel control of record/play switching. Can also be switched under tape recorder remote control via connector on rear panel.

Toggle switches allow selection of A-type, no processing, or SR.

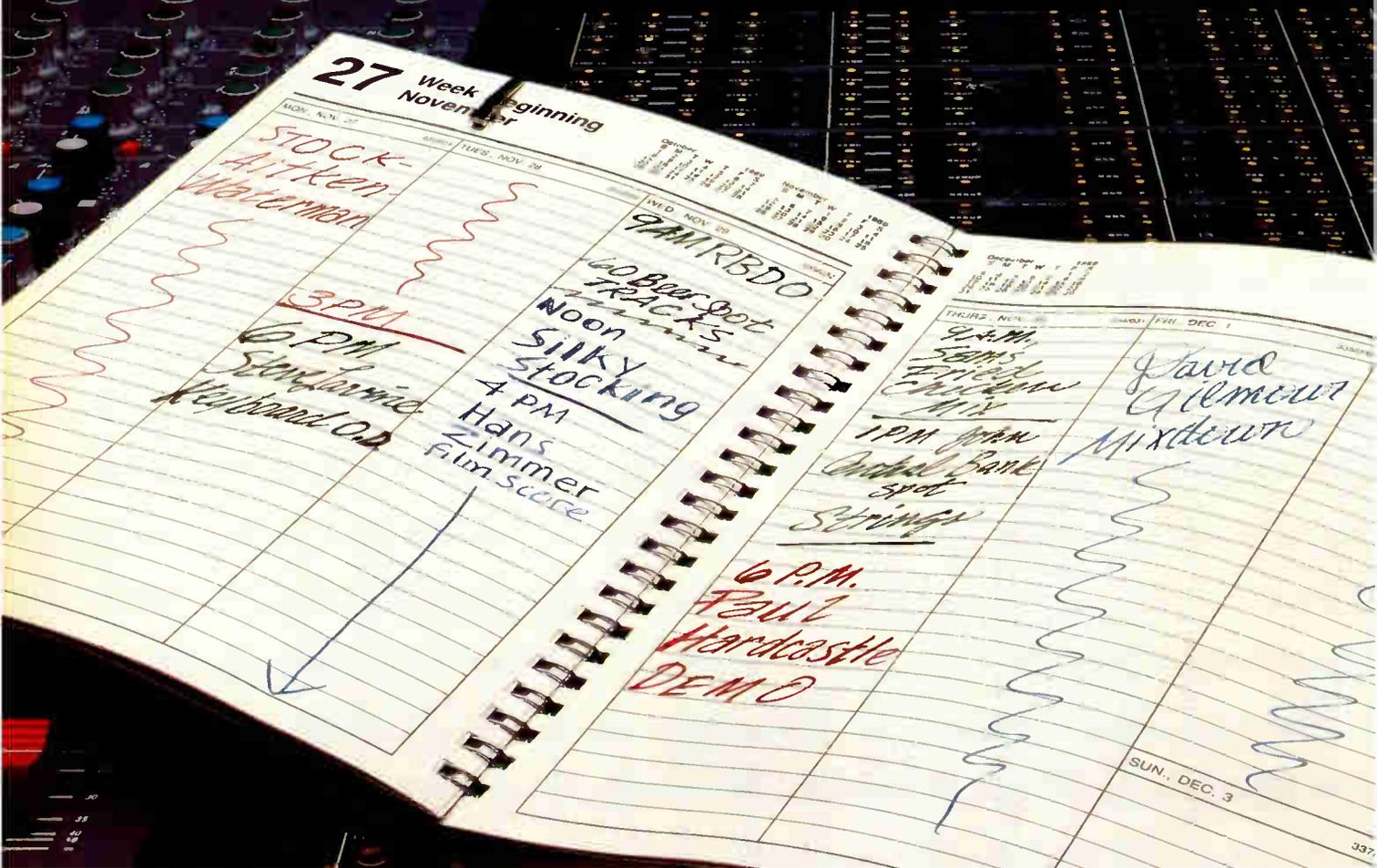
Model 363

100 Potrero Avenue, San Francisco, CA 94103-4813, Phone 415-558-0200, Telex 34409, Facsimile 415-863-1373 346 Clapham Road, London SW9 9AR, Phone 01-720-1111, Telex 919109, Facsimile 01-720-4118. Dolby and the Double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. © Dolby Laboratories Inc., 1986. SR® 85'86

**Dolby**

# AMR<sup>24</sup>

# Track Record



## BUSY

Today, some of the world's busiest studios are built around the AMR 24 console. Designed for a higher standard of performance, the AMR 24 offers more inputs, more flexibility and the highest levels of audio quality for day-to-day recording and mixdown.

## TRACKING

As a tracking console, the AMR 24 consistently achieves superior results the *first time* — no re-recording required. With exceptionally low crosstalk and noise, and a total dynamic range of

100 dB, it is fully compatible with digital audio.

## MIXDOWN

Configured for mixdown, the AMR 24 offers unrivaled flexibility. It handles all kinds of inputs — up to 84 of them in a standard format. Just push *one button* and the 24 Track Select switch changes the monitor returns to full-function line returns normalled to a second 24 track or to synchronized MIDI "virtual tracks." Simple switching creates an additional 24 inputs through the cue faders for effects returns.

Up to 64 channels can be automated with a wide range of factory fitted systems available.

Of course, these DDA design innovations are complemented by the highest quality components and designs that *feel right*.

## INVESTMENT

Studio owners know why the AMR 24's track record represents an impressive return on their creative and financial investment. If that news sounds interesting, write us on your letterhead for full information.



Klark-Teknik Electronics Inc., 30B Banfi Plaza North, Farmingdale, NY 11735 (516) 249-3660  
Unit #1, Inwood Business Pk., Whitton Rd., Hounslow, Middlesex, UK TW3 2EB 011-441-570-7161

Moon-type thing, or whatever. It all sticks within a certain framework. And I guess that's essentially the sound of the band." ■

## ARMENIA GETS A HELPING HAND

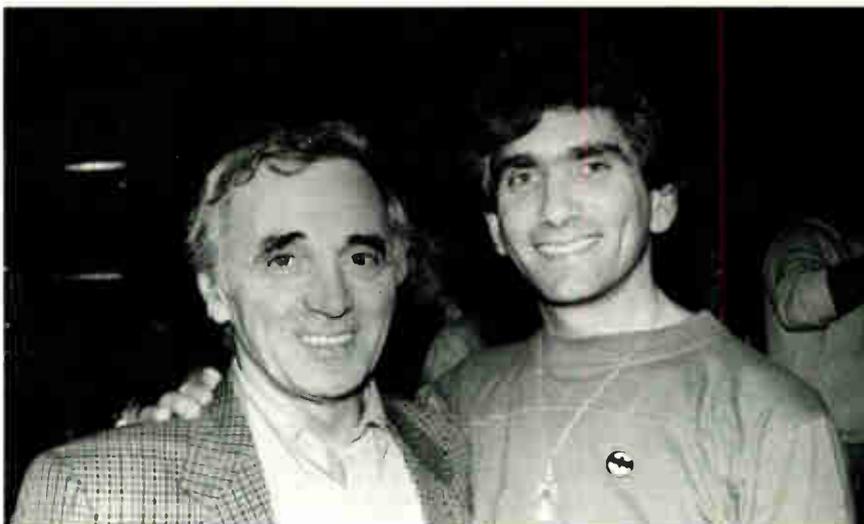
by David Goggin

"This is the single biggest session we've ever had," remarked Chris Stone, president of Record Plant, about the making of "For You, Armenia." All recording time and staffing of the studio's facilities at Paramount Pictures were donated by Stone to support the Armenian Relief Society's Earthquake Relief Fund. The song, with music by George Garvarentz and English lyrics by Charles Aznavour, Gerry Goffin and Paul Williams, was engineered by Joel Moss, director of Record Plant Scoring. The effort was organized by executive producer Joel Cohen, and producers Tim Goodwin and Larry Cohen, with noted record producer and songwriter Michael Masser serving as musical coordinator. 35mm filming was directed by Peter Bogdanovich for a television special titled *Friend to Friend*.

Prior to taping, instrumental tracks from France were digitally transferred to the new 48-track recorder, with additional tapes cloned for solo vocals. In addition to a superstar chorus, featured soloists included Charles Aznavour, Liza Minelli, Steve Lawrence, Irene Cara, Dionne Warwick, Rita Coolidge, Ben Vereen, Pia Zadora, Carl Anderson and Alexander Gradsky. By the end of the day, more than 100 tracks were recorded for later mixdown and mastering.

"We've had as many as 72 tracks by linking three 24-track machines, but this session surpasses everything we've done in 20 years of recording," explained Stone. "We had to move quickly to get all the vocals and this new 48-track machine made it far easier than dealing with multiple tapes and additional machines," added Joel Moss. "We haven't seen this many stars on one stage in many years," commented Record Plant's

**Photo above: Charles Aznavour (L) and Joel Moss**



# BACK ISSUES

- 1987 June, Remote Recording & Sound Reinforcement Listings.** Touring Consoles. Video's Stephen Johnson. Women in Sound Reinforcement. Paul Simon Live in Zimbabwe.
- 1987 July — SOLD OUT**
- 1987 August — SOLD OUT**
- 1987 September, Southern California Studios.** Recording in Hawaii. The Doors. Analog 2 tracks. Phil Spector.
- 1987 October, New Products Directory.** Producers' Forum. John Hiatt. Tape Recorder Maintenance. Laurie Anderson.
- 1987 November, North Central and Canadian Studios.** George Harrison. Pioneers and Trends in Film Sound. Localization. Maurice Jarre.
- 1987 December — SOLD OUT**
- 1988 January, Northwest Studios.** Music Software Programs. On the Road with Pink Floyd. CD Video. Mick Jagger.
- 1988 February, Independent Engineers & Producers.** International Recording Automation & Control Systems. Remixing with Alan Parsons.
- 1988 March, Southeast Studios.** Optical Storage Methods. Stax Records. Studio Monitors. Branford Marsalis.
- 1988 April, Video Production & Post-Production Facilities.** Sound Effects for Video. Saul Zaentz. RCA Studios. Jon Astley.
- 1988 May, Northeast Studios.** Sound at the Winter Olympics. Lee Hirschberg. New Age Music Production. Brian and Edward Holland.
- 1988 June, Remote Recording & Sound Reinforcement Directory.** Sound at the Grammy Awards. Joni Mitchell. Tina Turner Live From Rio. Jimmy Webb.
- 1988 July, Recording Schools Directory and Southwest Studios.** Education Supplement. Interactive Production Update. Talking Heads.
- 1988 August, Studio Designers & Suppliers.** Australian Recording Supplement. Lucasfilm's Skywalker Ranch. Bobby McFerrin.
- 1988 September, Southern California & Hawaiian Studios.** Huey Lewis. LA Recording Supplement. Second Generation CD Mastering.
- 1988 October, North Central Studios.** John Lennon Movie. Digital Audio Meets Stereo TV. Read/Write Optical Storage. Andy Summers.
- 1988 November, New Products Directory.** HyperMedia Update. 48 Track Digital. Sound for Tucker Donald Fagen.
- 1988 December, Mastering, Pressing & Duplication Facilities.** Premastering Tips. "Bird" Parker. Realities of Fiber Optics.
- 1989 January, Northwest Studios.** Santana Music Production Software. TEC Wrap Up.
- 1989 February, Southeast Studios.** The New South. A Special Supplement. Emory Gordy, Jr. DAT Technology, Part 2.
- 1989 March, Independent Engineers & Producers.** European Production Industry. CSNY. Microphone Specifications.
- 1989 April, Video Production and Post-Production Facilities.** Video Sweetening Basics. Dolby's New Studio. Frank Zappa. David Lindley.

**CHECK THE ISSUES YOU'RE INTERESTED IN.**

# of BACK ISSUES CHECKED ABOVE at \$6.00 each (\$7.00 outside U.S.) \_\_\_\_\_

CHECK ENCLOSED FOR TOTAL (U.S. Funds)  
Payment must accompany order. \$ \_\_\_\_\_

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

MAIL TO: Mix Back Issues, 6400 Hollis Street # 12, Emeryville, CA 94608.  
Make checks payable to Mix Publications; allow four weeks for delivery within U.S.

# GOLD LINE LOFT

**PORTABLE RTA  
1/3 OCTAVE  
8 MEMORIES**



**30 Bands Aux. Input  
Instrument Microphone**

Real-time analysis is the **ONLY** accurate way to set up a sound system.

**Only \$649.95 List**

**LOFTECH TS-1  
AUDIO TEST SET**  
Three Test Instruments in  
**One!**



**Audio Oscillator  
dB Meter  
Frequency Counter**

Now available with balanced output plus fine tune adjust.

**Only \$299.95 List**

**DIGITAL RTA  
1/3 OCTAVE  
UP TO 30 MEMORIES**



**OPTIONS  
Printer & RS232 CRT**

**Only \$1995.00 List**

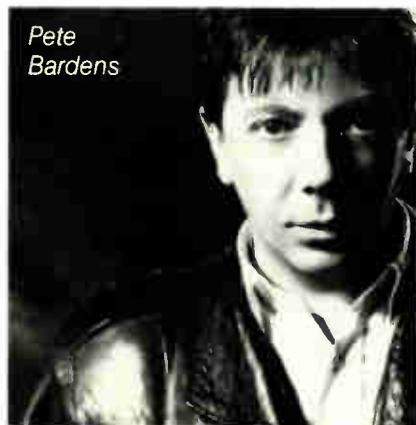
**CONTRACTOR PRICES**

Send for free catalog:

Box 500, West Redding, CT 06896  
Ph (203) 938-2588 FAX (203) 938-7840  
800-433-6373

## MUSIC & RECORDING

Stephanie Murray, who coordinated the recording session. "It's such an important project, and everyone has been absolutely wonderful." ■



Pete  
Bardens

## PETE BARDENS: PROGRESSIVE THEN & NOW

by **Randy Alberts**

Crossover success has always been a barometer for a musician's ability to adapt to and/or change current trends. Many a project has been scrapped due to poor timing, and those who only follow trends usually fail if their efforts are viewed as imitations. Given his past credentials in the critically lambasted genre of progressive rock, it is all the more refreshing to see Pete Bardens once again enjoying the success of his "new progressive" music.

"The new album is a gentle transition," says Bardens of *Speed of Light*, his second Cinema Records release. "Side one is very textural, like the first album, but on side two one begins to notice the snare and the hooks. I did it gradually because I want people to accept the changes I've gone through in my music over the years."

Bardens' first release, *Seen One Earth*, was a success on radio as well as MTV due to the well-received "In Dreams" single and video. On both albums Bardens bridges instrumental and lyrical rock with his curious mixture of melodic synth textures and vocal lines that defy the standard pop format.

"I've always written songs 50-50 vocal and instrumental," Bardens says, "and when lyrics are used, the

voice is treated more like another instrument. If you mixed out the vocals, the tunes would stand on their own as strong instrumentals."

Throughout the '70s Bardens was keyboardist for the seminal progressive rock group Camel, one of the few bands that received critical praise at a time when blasting "dinosaur rock" was very popular. "I was very happy during my years with Camel," Bardens says. "We began to evolve into our own style, which came to be known as 'progressive rock,' but we were still very much a cult band."

Bardens' experience before answering a *Melody Maker* ad in 1972 to join Camel included some interesting bandmates: in 1966 he was in Shotgun Express, which included Mick Fleetwood on drums, Peter Green on guitar and a very young Rod Stewart handling vocals. Now, more than 20 years later, Fleetwood and Bardens are together again, this time on "Whisper in the Wind," from Bardens' new album.

Another longtime friend is Van Morrison, who in 1967 enlisted Bardens to play keyboards for Them. Bardens recalls, "We had our problems, but we were a very good band when things worked." Eleven years later, after his tenure with Camel, Bardens played on Morrison's *Wave-length* album and tour.

With experience in R&B, soul, pop and progressive rock, it is Bardens' knowledge and use of available technology that has helped him define his own sound. "At first I mistrusted synths, but after accepting them for years I have learned to use them to my own ends," he says. In fact, Bardens has made use of sampled sax and guitar to develop his own signature lead style on both of his Cinema albums.

Self production is also something that Bardens has learned to use to his own advantage, and with the help of Phil Da Costa behind the board, and a supporting band that includes Neil Lockwood on vocals, Bardens has complete control over his music. "I'm very grateful to Cinema and Capitol Records for giving me total freedom for what I want to do," he says. "Lee Abrams and Danny Somach at Cinema have a great love and genuine understanding of progressive music, both old and new." ■

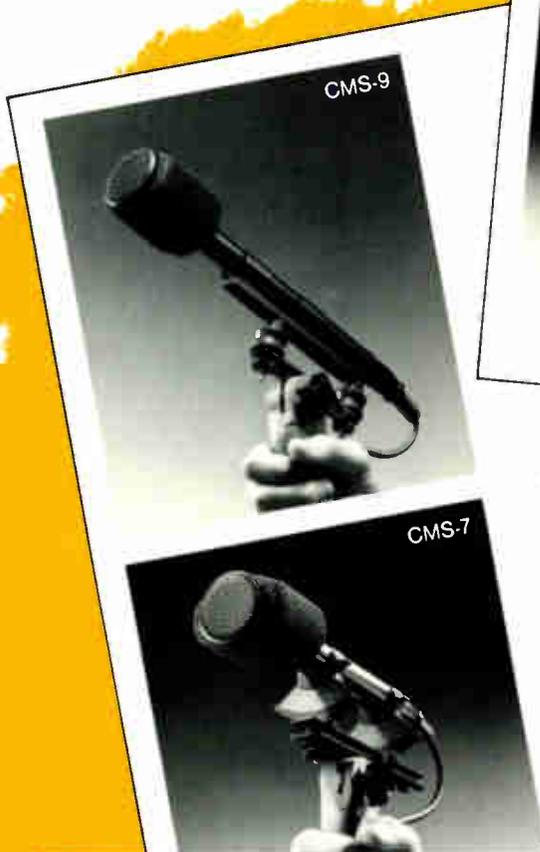
# Hear at Last.

*FULL-DIMENSIONAL • TRANSPARENT • ACCURATE IMAGING*

**I**n Japan, Sanken dominates the world of professional audio with over 50,000 microphones in daily use. Now the Sanken line of precision mics is available worldwide. The hand-crafted titanium diaphragm found in every model and such unique features as dual-capsule design have made Sanken the recognized leader in microphone technology.



**S**anken is the *only* mono microphone in the world with dual-capsules. For an unprecedented capture of the full audio spectrum, even off-axis, compare a Sanken with the old standards and hear a new way.



**F**or pure Stereo, just "point and shoot" a Sanken — the first line of professional portable MS-Stereo mics in the world. TV and radio broadcasting, location filmmaking, or in the studio — try our Sterec image with your visuals and get the real picture.



Japan's most original microphone maker.

**AUDIO INTERVISUAL DESIGN**  
Exclusive U.S. Distributor (213) 469-4773

**NORTH AMERICAN DEALERS:**

**Audio Intervisual Design**  
Los Angeles  
(213) 469-4773

**Audioline**  
Milwaukee  
(414) 785-9166

**Leo's Pro Audio**  
Oakland  
(415) 652-1553

**Dealer Inquiries Invited**

**Studio Supply**  
Nashville  
(615) 391-0050

**Martin Audio**  
New York  
(212) 541-5900

**Audioline**  
Chicago  
(312) 449-9166

**Audio Services Corp.**  
North Hollywood  
(818) 980-9891

**AVC Systems**  
Minneapolis  
(612) 831-3435

**Studio Supply**  
Dallas  
(214) 358-0050

by Philip De Lancie

# DOLBY'S VISION

## AN EXTENDED FUTURE FOR CASSETTE

Three years ago this column opened with a look at an initiative on the part of Dolby Laboratories Licensing Corporation to encourage a transition from Dolby B-type to C-type noise reduction in the encoding of prerecorded cassettes. Responding to a rise in consumer audio fidelity expectations stimulated by compact discs, Dolby felt the time was right to introduce C-type, with its improved signal-to-noise ratio. It was hoped such a move would stave off any challenge posed to the cassette's primacy by CDs or the "soon to be introduced" DAT.

Three years later, DAT has yet to make its entrance into the U.S. consumer market, and the rapid expansion of CD sales has had no discernible effect on prerecorded cassettes, whose sales have also grown robustly. But the good news for cassettes can hardly be chalked up to the success of Dolby's plans. Dolby B remains the

since Dolby began talking about convincing software manufacturers to release prerecorded music using C-type noise reduction. Is it fair to say that the results have been disappointing?

**Bob Megantz:** It's true, and there are several reasons for that. First of all, a lot of the prerecorded cassettes are sold to be played on playback-only products, like car stereos and Walkmans [Walkman is a trademark of Sony Corp.]. C-type technology is more than twice as complicated as B-type technology, and up until very recently there was no low-voltage, C-type integrated circuit available that could be used with one battery in a Walkman-type product. Now the situation is changing, but up until a year ago there weren't that many Walkmans with C-type decoding capability.

standard noise reduction format for prerecorded cassettes, despite the company's efforts to encourage a change. Further, word has circulated that an entirely new signal processing system is under development at Dolby for use in consumer cassette applications. The following conversation with Dolby general manager Bob Megantz explores the company's efforts in this area and the implications for the future of Dolby C.

**Mix:** It's been at least three years

That is important, because if you have a C-type encoded cassette, you want to play that back with C-type decoding. It almost always sounds funny with no noise reduction decoding, and it usually sounds funny with B-type decoding. You can hear these dynamic pumping artifacts, and there is also a general spectral change in the sound of the cassette.

What made B-type encoded cassettes so wonderful is that you could play them back with no noise reduction, and a lot of people actually thought they sounded better because of the slight high-frequency preem-



phasis. There was very little dynamic modulation. With C-type that isn't really true. You don't get something for nothing. In getting the extra 10 dB of dynamic range, you end up with a system that will cause audible modulation effects if it is not used with a C-type decoder. That, coupled with the fact that there were not very many Walkmans available with C-type, didn't give the software manufacturers much encouragement for producing C-type software. What were they going to get? A product that could be played back on maybe 30% of all the available cassette playback units.

On the other hand, the main reason that prerecorded cassettes have been so successful is that the manufacturers have worked so hard to improve their quality. Cassettes are no longer junk. Some of them actually sound quite good. The manufacturers are extremely interested in doing anything they can to continue to improve the quality, whether in shells, tape formulations or new signal processing. For that reason a lot of the major prerecorded cassette manufacturers have been seriously interested in using C-type for some time. But because of the compatibility problem



“C  
CASSETTES  
ARE NO LONGER  
JUNK.  
SOME OF THEM  
ACTUALLY SOUND  
QUITE GOOD.”



and the fact that there are 200 million B-type machines out there in the marketplace worldwide, with significantly fewer C-type, it doesn't really make sense from a marketing point of view for manufacturers to put all their eggs

in the C-type basket. And they can't do dual inventory.

**Mix:** So what's the outlook for furthering the use of Dolby C-type noise reduction?

**Megantz:** Dolby C has become a mature technology in the cassette deck field. Most of the cassette decks in the world are made using Dolby noise reduction, and 60% of them now include C-type. So it is actually doing very well in the products that both record and play back. We are quite pleased with that. C-type has been less successful than B-type in the area of playback-only products. Obviously, that is why we wanted software with C-type encoding. If we had that, there would be a lot more car stereos and Walkmans out there with C-type playback. But that is where we hit the problem of compatibility.

**Mix:** Is there some way over the hurdle, or is the issue of C-type for prerecorded product pretty much dead?

**Megantz:** Well, in addition to what I already told you, we are working on a new noise reduction system based on some of the principles of our professional SR system. I can't give you details because we are still in the preliminary stages. But one of the fundamen-

10 AM - 7 PM DAILY

The **DA** Digital Audio Tape STORE

2624 Wilshire Blvd. Santa Monica, CA 90403

(213) 828-6487 • FAX: (213) 470-6176

SPECIALIZING IN  
**DAT RECORDERS**  
**TAPES • ACCESSORIES**

**PROFESSIONAL • PORTABLE • HOME**

FULL WARRANTIES • ENGLISH MANUALS

AmEx VISA MASTERCARD  
Shipping VIA UPS/FED-EX

Circle #035 on Reader Service Card

# Sam Ash®

## "Music Dealer Of The Year"

Voted by Members Of The  
Music Industry In The  
"Third Annual Music & Sound Awards"

Respected by musicians, studios & industry professionals alike, Sam Ash is the kind of store you like to deal with:

- Helpful, knowledgeable musician sales people.
- Tremendous selection of instruments, sound & recording equipment, computers and software, MIDI & home keyboards ... 16 million dollars inventory
- Consistently Low Prices!

# Sam Ash® MUSIC STORES

## MUSIC • SOUND COMPUTERS

10 Branches in and around New York City

# 1-800-4-SAM ASH

In New York State

# 1-718-347-7757

Circle #036 on Reader Service Card

tal goals in the design of this system is to make the encoded cassettes compatible, meaning that you can play them back with B-type or with no noise reduction, and it will still sound okay. Because of that, we think that cassettes prerecorded with the new system will be much more marketable and easier to produce than cassettes encoded with C-type.

We work very hard to keep good relations with the software makers, and we also don't want to cause confusion in the marketplace. So we didn't want to see them produce the C-type cassettes and then have to tell them a year or two later, "Sorry, we've got a new system now." We suggested that it might be better for them to wait a little longer, until we decide if this new system is going to be successful and if we are going to introduce it. If we do, it makes a lot more sense for them to go with that instead of C-type.

**Mix:** Is the new system expected to greatly increase signal-to-noise ratio while being more playback-compatible with B-type or no noise reduction?

**Megantz:** Subjectively compatible is the way to put it. You can't encode and have it sound the same as the unencoded signal. But that is one of the good things about Dolby SR. It was designed to be a stable system. There is not a lot going on in there most of the time. If you listen to an SR-encoded signal, it sounds compressed, but you don't hear a lot of pumping and modulation. That is an extremely nice feature, because it makes the whole system less prone to problems in the presence of frequency response or phase errors. That same strength is what we are trying to design into the consumer system, so it will be easier for the system to sound good. It will sound good a higher percentage of the time, and any problems introduced by a lousy machine or dirty heads will be minimized.

**Mix:** What are the underlying principles of the new system?

**Megantz:** Dolby C introduced the ideas of spectral skewing and anti-saturation circuits, and SR has similar features, though it is obviously much more sophisticated in its implementation. The basic idea is to fit the signal into the available dynamic range by level and frequency. All analog tape has a certain dynamic range at every

frequency. You can draw a picture showing the noise at every frequency and the maximum output level at every frequency, and the area in between the two is the area that you have to work with. So how do you compress the signal to stuff as much signal as possible into that given safe operating area of the tape and get the best signal out? It's a matter of looking at it in that way.

**Mix:** And that's the way the new system is going to be approached as well?

**Megantz:** Yes. There's something in SR called "action substitution," where a fixed band and a sliding band are used together so that the best qualities of each are used depending on what kind of program you are trying to record. When the sliding band works better it uses that, when the fixed band works better it uses that, and when some combination of the two works better it uses that. That is action substitution, and that is a fundamental building block of both the professional SR circuit and also what we are looking at for consumer SR.

There is another thing called "modulation control," and it requires a more sophisticated control circuit. All those fixed and sliding bands are controlled by a circuit that tells them when to slide, what position to slide at and what position to park at. That helps stabilize the signal. If these bands are not needlessly sliding all over the place, then the signal is more stable.

**Mix:** How can the essential ingredients of SR, which costs well over \$1,000 for two channels of cards, be boiled down and provided at a price that makes it feasible for cassette machine manufacturers to use it in consumer products?

**Megantz:** That's why we have to talk in terms of ICs. The professional SR is a discrete circuit; it has something like 1,400 components. It uses FETs and has a 110dB dynamic range. Obviously we thought about price for the consumer system, and it has to be very low in order for it to be successful. But, to start, the parts cost is more than twice that of Dolby C, I would say. We don't really know at this point, but it is a much more complicated system than C-type. It's hard to say what types of improvements might happen with IC technology. Eventually, an IC of this system may cost a buck. Right now, we generally figure that the parts cost to add C-type to a

**TO THE PRESSING PLANT**

111 Oak Lawn • Dallas, Texas 75207

**Our Quality is Never Compromised!**

- Mastering
- Planning
- Pressing
- Cassette
- Inserts
- 7" Singles
- 12" Albums

- Laser Color
- Separations
- Color Key
- Film Work
- 12" Masters
- 7" Masters
- Typesetting

- Director
- Board Fining
- 12" Jackets
- 7" Sleeves
- 7" Sleeves
- Double Jackets

**DSR**  
Digital Signal Recording

(214) 748-6622

Circle #037 on Reader Service Card

AVAILABLE  
WITH MIDI

# Pro-Line

PRO-LINE is a unique mixing console range, designed to offer musicians who perform and record with an affordable, well equipped console which can mix in any environment from front-of-house P.A. to 16-track MIDI studios. Offered as an option with PRO-LINE is an exciting MIDI controlled muting system to offer a new dimension in creative sound control.



Features include: Optional MIDI Muting System which can control all inputs, AUX 1 and AUX 2 Master Sends; Balanced MIC/LINE inputs on 16.8.16 & 8.4.8A; Balanced MIC inputs on 16.4.8; Aux Line Inputs; 2 Aux Returns; Stereo Return; Inserts on inputs, groups & master outputs; Direct Outs; 3-band EQ with sweep-mid on input channels; 2-band EQ on outputs/aux returns; 4 aux sends; 48V phantom power; 100mm faders; expandable to 40 inputs.

## STUDIOMASTER

For a full colour brochure, contact Jim Giordano, Paul Reeve or Tony Allen at STUDIOMASTER INC., 1340-G Dynamics Street, Anaheim, CA-92806 U.S.A. Tel: (714) 524 2227 Fax: (714) 524 5096

ALGARY Mothers Music (403) 245 3725 EDMONTON Mothers Music (403) 439 0007 HALIFAX Music Shop (902) 422 5671 MONTREAL Steves Music Store (514) 878 2216 OTTAWA Steves Music Store (613) 232 1131  
QUEBEC Musique Richard Gendreau Inc (418) 522 3877 ST JEAN SUR RICHELIEU Guy Berger Son & Lumiere (514) 346 5310 TORONTO Steves Music Store (416) 593 8888 VANCOUVER Mothers Music (604) 438 3341

World Radio History

Circle #127 on Reader Service Card

# Find out the



## difference

All pre-recorded DATs are not created equal. LORAN's duplicated DATs are fully encoded to utilize the complete capabilities of hardware functions including quick access to the first song and fast music search.

### DISCOVER LORAN'S ANALOG ADVANTAGE

LORAN's technical expertise has allowed us to utilize process control techniques to guarantee the very highest quality analog reproduction.

**LORAN**  
CASSETTES AND AUDIO PRODUCTS

10-48 Clark Street  
Warren, Pennsylvania 16365 USA

TELEPHONE

**(814) 723-8600**

Fax (814) 723-9490

## AFTER · MIX

product is about \$5, and \$2.50 for B-type. You multiply those numbers by five to get the final added price of the product.

Partly because of questions about price, we're not sure when and if we are going to introduce the system. To present this kind of technology properly in the consumer area, you need to have integrated circuit implementation of the processor. ICs take a long time to design and make. It takes months and months just to turn them around, finish the design and get them to run down the line. We're not sure at this point when those IC implementations are going to be ready.

**Mix:** When do you think you will know definitely whether you have a system where it will be feasible to proceed?

**Megantz:** It will be this year, for sure.

**Mix:** If and when you do have something, how long do you think it will take to start getting the chips put into machines?

**Megantz:** It is hard to say, because it depends a lot on the development, but we are hoping for hardware early next year and software sometime by the end of next year. The window of opportunity for introducing a new technology is critical. You can't do it too soon, and you can't do it too late. Trying to judge when to do it is one of the big tricks to a successful introduction. That's one thing we have learned over the years with the various technologies we license. And we think the time is ripe for this right now. We think the cassette format will continue to be the dominant format in the consumer marketplace for many years, assuming that some of the technical problems associated with it can be solved. So we are not just trying to introduce a new noise reduction system. We are trying to use an overall systems approach to the whole cassette format, which will make it a very convenient, easy-to-use and extremely good-sounding format for another five, ten or 15 years.

There is an interesting difference between cassettes and DAT. With DAT, all the tapes are the same. There is no bias adjustment or equalization, you don't have to worry about the record level and, theoretically, it will sound excellent when you throw it into any other DAT machine. With cassettes, you have 10 million different formula-

tions of normal tape, you've got four different major groups of tapes, you've got different noise reduction systems and all these other things going on. It is crying for simplification. It would be nice to be able to just take any tape, put it in a machine, turn it on and have it make a nice recording that is interchangeable.

**Mix:** Given the existence of DAT and the planned introduction of recordable CDs, isn't this a bit late in the life cycle of analog audio cassettes to start in on a whole new hardware modification?

**Megantz:** Everybody has been talking for a long time about what is going to replace cassettes, and as far as we can tell, nothing has come along. Something might come along in the future, like recordable CD, if it's cheap enough, but in my opinion DAT isn't it. That is not just because of the software companies' objections. It's not even successful in Japan, because it doesn't offer something so much better and/or cheaper than what is available right now that people will flock to buy it. You may think I'm just tooting the Dolby horn when I say this, but there was a double-blind A-B test conducted at AES on 90 recording engineers and others in the business, and only two were able to tell the difference between a CD and a Dolby C-encoded cassette. The performance capability of the cassette under good conditions is very high.

The cassette has a lot of momentum. There are hundreds of millions of cassette products out there and billions of prerecorded cassettes. And the market is still growing quite nicely. It is going to have to peak and stay at the top for a while before going back down. So there are still a lot of products with cassette transports that are going to be made in the world. The cassette is an existing, marketable system; people already understand it, the whole merchandising system is in place to sell it and it is very popular. We are hoping that by making it easier for people to use and curing some of the problems that exist with the format, we will be able to extend its life. ■

*Phil De Lancie, a mastering engineer at Fantasy Studios in Berkeley, Calif., is our resident voice on formats, trends and technologies in the world of prerecorded music mastering and manufacturing.*

# Professional

The Telex 6120XLP.  
A new audio tape duplicator with  
8X speed and tougher specs.

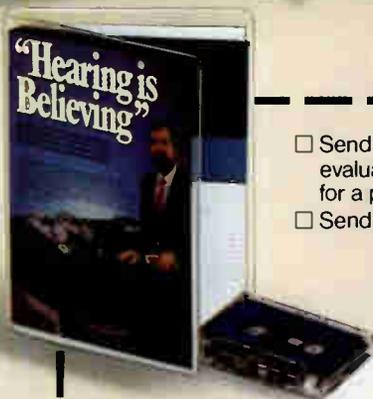


## New, tougher specs for a difference you can hear.

Telex is still the leader in high speed duplicating (16X speed) with its famous 6120XL series, providing outstanding audio quality, unlimited expandability and highly profitable production capability. However, if you have higher critical audio needs, the new Telex 6120XLP with 8X speed and XL Life heads should be your choice. For full details and specifications or even a demo tape, call or write to: Telex Communications, Inc., Minneapolis, MN 55420.

# TELEX®

Circle #134 on Reader Service Card



- Send me a free demo cassette for my evaluation— Include my reservation form for a personal demonstration.
- Send me literature only at this time.

Telex Communications, Inc.  
9600 Aldrich Av. So.  
Minneapolis, MN 55420

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

Telephone \_\_\_\_\_

Mix 5/89

World Radio History

by Dan Daley

# RINGO FINDS OASIS A SHINING STATION SCORING FOR EX-BEATLE'S NEW SERIES

**R**ichard Starkey had already carved out an estimable reputation as one of Liverpool's leading thrashers when the emerging Beatles pursued him to be their drummer. Rather than a songwriter with *angst* to grind, he was a musician with an axe to play. So it is that Ringo Starr has moved through his many-careered life with what most regard as a professional attitude, be it in music or acting.

His penchant for effortless cuteness evolved into a thespian ability of sorts in *Caveman*, a vehicle with limited dialog but virtually unlimited camera-mugging potential. Now the Magic Christian has gone from Neanderthal to 18-inch-high narrator of a new PBS children's television series, *Shining Time Station*, which debuted to good notices this past January.

*Shining Time Station* is an Americanized spin-off of a very successful British program featuring Ringo Starr as Mr. Conductor, the narrator of the adventures of one Thomas the Tank Engine, an animated train engine. The original character was created more than 40 years ago in a series of classic children's books by the Rev. W. Awdry. In its colonial version, Thomas' continental exploits have been wrapped around with live-action appearances by Ringo, actress Didi Conn (*Grease*, *You Light Up My Life*, *Benson*) and Leonard Jackson (*The Color Purple*), among others.

**Right: Steve Horelick of Oasis. On the screen is the popular Thomas the Tank Engine character. Above: The cast surrounds conductor Ringo Starr.**

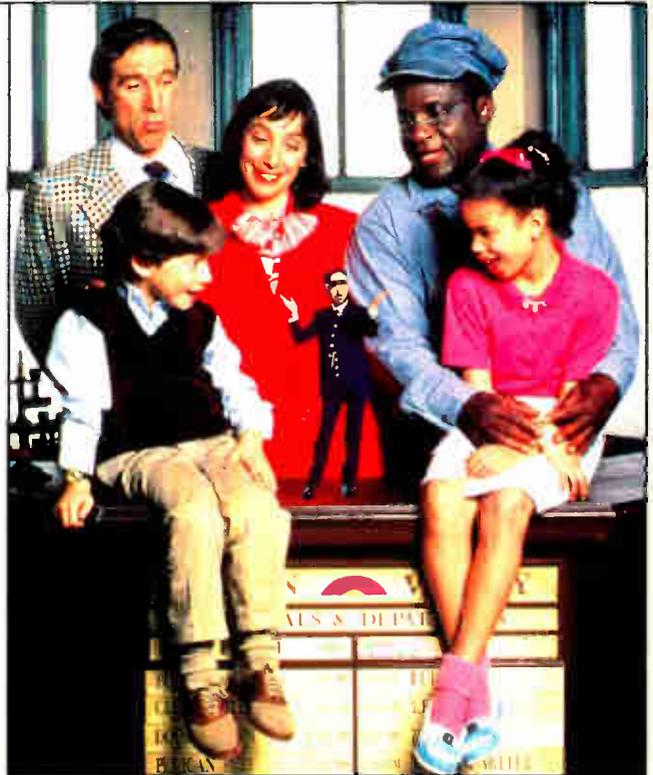
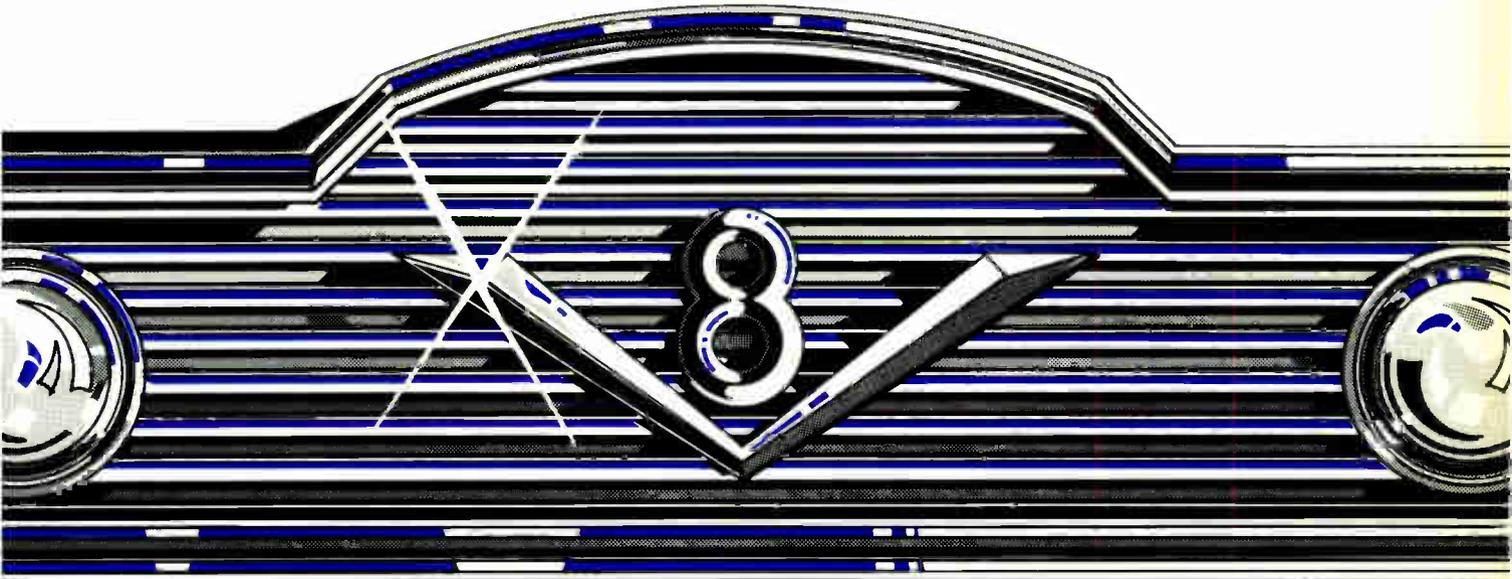


PHOTO: BILL BENNSTEIN



PHOTO: HOWARD SHERMAN

# Innovative engineering, Breathtaking performance, Comforting reliability.



AMS AudioFile is now available with V8 power and User Feedback Injection which puts it first in any race.

The new Version 8 software has taken over 12 months to develop and provides a host of new functions whilst further streamlining and speeding-up sound manipulation on Winchester disc.

Why risk losing your clients by being any other manufacturer's "beta test site", when you could work with the most popular proven system in the World.

Even if you never considered AMS AudioFile before, book a test drive now (be surprised by our unrivalled performance!) and find out why we leave the competition standing.



Hard Disc  
Editor



Digitally Assignable  
Consoles



DMX/FMX  
Digital Audio Processors



Carrec Standard and  
SoundField Microphones



Custom Broadcast  
Consoles

## ams AUDIOFILE

AMS Industries plc

AMS/Carrec. AMS Industries Park, Burnley, Lancs. BB11 5ES Tel (0282) 57011 Telex 63108 AMS-G Fax (0282) 39542

AMS/Carrec. USA. 3827 Stone Way North, Seattle, WA98103 USA Tel (206) 633 1956 Fax (206) 547 6890

Demonstration systems available throughout the United States



The User's Award for Best Achievement in Engineering Ltd. UK and  
AMS Industries plc 1988. © 1988. For more information contact AMS Industries plc

Circle #128 on Reader Service Card

# You don't have to go to auctions to get that classic tube sound.



Until now, the only way to get your hands on great sounding tube components was either hunting for auctions or combing the classifieds. No longer. Because today, there's TUBE-TECH.

Every TUBE-TECH product is dedicated to recreating the classic musical sound that the early tube units are known for. Our PE 1B equalizer, for example, has design features similar to the classic Pultech EQ. Including a passive filter section, and all-tube, push-pull amplification. Even the control parameters are remarkably similar.

This single-minded adherence to the classic designs has been carried out in every TUBE-TECH product. From our equalizers, to our compressor, to our microphone preamp.

If you're as serious as we are about having that vintage, all-tube sound, your search is over. Contact your nearest TUBE-TECH dealer for a demonstration.

## TUBE-TECH

Circle #080 on Reader Service Card

Ringo plays a diminutive railway conductor for the animated locomotive, reprising an unseen role he has played offstage for the British version of the show since 1984. The series is jointly produced in America by PBS flagship station WNET New York and Quality Family Entertainment, Inc.

### YOU SAY TOMATO . . .

Even though we share a somewhat common language, there are a few aspects of the vernacular that get lost in the transatlantic crossing. It is no exception on *Shining Time Station*. American producer Rick Siggelkow turned to Steve Horelick, owner of Oasis Music in New York and a veteran of children's music scoring, for both songs and jargon-fixing for the new series.

Horelick, who has two kids of his own, has scored numerous jingles over the years and continues to compose and produce music for *Reading Rainbow* for PBS. He is also a charter member of the Fairlight users club, and with the help of a program called *Q List*, he has used the Fairlight as an automatic dialog replacement (ADR) device to Americanize Ringo's dialog.

Oasis is a small studio whose sunlit windows overlook the courtyard of a church on Manhattan's West Side. Inside, a small studio designed by Horelick and John Storyk is centered around a single video monitor. A V-shaped desk holds a Fairlight Series III on the left and a small Trident Series 65 console on the right. Horelick says the layout, created with video *and* the customer in mind, puts the client in the center of the mix. The room is wired for the occasionally rented 24-track deck, but most often a 2- or 4-track deck handles analog chores, and a Sony PCM converter sends digital safety information to a VHS deck nestled in the minimalist outboard rack.

Horelick is an ardent admirer of the Fairlight's user-friendliness. "I've always thought of the Synclavier as more of a performer's instrument because it's so dexterity-oriented with all those multifunction buttons," he explains. "Whereas with [the Fairlight] there are icon-driven systems I'm more familiar with from [using] the Macintosh computer."

Ringo flew to New York to do his dialog replacement after Horelick and

Oasis programmer/composer Daniel Shklair researched the technical circumstances concerning the original voice-overs for the British version. "There are certain words that don't transfer well," says Horelick. "For instance, a freight car or any train car is called a freight truck, and, of course, a truck is called a lorry over there. And a guard is a conductor. Looking back, it really was a fascinating job. Many of these original voice-overs were recorded in Ringo's own house in England. However, they were recorded in different places with different microphones and various EQ settings, over a period of maybe three or four years, and that proved to be a bit of a problem initially."

Horelick and company, including

**"Ringo was no prima donna. He was a real pro and a real gentleman."**

engineer Peter Darmi, who did the dialog replacements at Oasis, eventually discovered that the main microphone used was a Neumann U67. "But it's hard to say if they were all done with that microphone," he adds. "Each show sounded slightly different, even after EQ changes were made."

The video deck, a 24-track machine, a 4-track deck and the Fairlight were all synched together with a Lynx synchronization system. The 1-inch video had already been striped with SMPTE time code, and the voice and music tracks were loaded onto the 24-track tape. The series' producers determined where changes were needed, and SMPTE points were located and noted. The SMPTE insert points were then preprogrammed into the Q-List software for the Fairlight, and the Q-List acted essentially as a sequential command module for the Fairlight.

"Any Fairlight command—turning

on the sampler or running a sequencer—can thus be sequenced," explains Horelick. "And the edit list was set up to give us our insert points, with a click track leading up to it so Ringo would have a cue for his inserts. This helped tremendously since there were lots of one-word inserts and several entire paragraphs, and we were working on the entire collection of 20 half hour episodes, with two four-minute segments per episode.

"Ringo was no prima donna," continues Horelick. "He was a real pro and a real gentleman. His goal was to finish and get on with whatever else he had to do." (Horelick adds that Ringo showed no real interest in the technology or the ADR process. However, Ringo might have been pleased to know that the end result, after a mixdown at Oasis and video lay-in at Sync Sound in Manhattan, was delivered to the television station in familiar mono, much like the early Beatles records were. Starting this fall, PBS will switch to stereo broadcasting, and future programs will be delivered in 2-track format.)

Horelick says this use of the Fairlight and Q-List represent a new and very cost-effective way of doing ADR without buying a dedicated ADR system. Although the Fairlight has substantial internal sampling memory, Horelick opted to do Ringo's voice-overs to tape because of the random nature of the inserts. This isn't always the case, though, he says. Horelick recently used his Fairlight to assemble spots for the ADP Company's radio campaign. All the voice-overs, done by a comedian, were recorded digitally to hard disk and the three-minute routine was turned into 60-second spots—192 different ones.

"Here's where the Fairlight's completely nondestructive editing came into play," says Horelick proudly. "We sampled and edited the voice-overs and added some custom and library special effects. We then got down to six basic spots, but each needed 32 phone numbers added in. Because the underscore was overlapping the voice-over, it wasn't an edit job, but rather a mix job. The Fairlight really helped because multisequencing could take place for each mix. Using Q-List, I told the Fairlight to replace each new 1-800 number, very much like a mail-merge program works on a word processor. All the new information was merged and mixed auto-

# Just go to your phone.

## Northeast

AudioTechniques Inc., New York, NY  
Tel: (212) 586-5989 Fax: (212) 489-4936

## New England

Electronic Acoustic Research Systems  
Allston, MA  
Tel: (617) 783-5229 Fax: (617) 254-8781

## Mid Atlantic

Tekcom Corp., Philadelphia, PA  
Tel: (215) 426-6700 Fax: (215) 426-7287

## South

Studio Supply, Nashville, TN  
Tel: (615) 391-0050 Fax: (615) 391-4092  
Harris Audio, Atlanta, GA  
Tel: (404) 881-1333 Fax: (404) 875-8487  
Studio Works, Charlotte, NC  
Tel: 1-800-438-5921 Fax: (704) 375-9723  
Harris Audio, N. Miami, FL  
Tel: (305) 944-4448

## Midwest

Milam Audio, Pekin, IL  
Tel: (309) 346-3161 Fax: (309) 346-3161  
American Pro Audio, Minneapolis, MN  
Tel: (612) 925-9423 Fax: (612) 925-0127

## West

Virtual Designs Ltd., N. Hollywood, CA  
Tel: (818) 503-1292 Fax: (818) 503-0633

## Canada

Teletech, Markham, Ontario  
Tel: (416) 499-3242 Fax: (416) 475-5684  
Long & McQuade, Scarborough, Ontario  
Tel: (416) 751-9709 Fax: (416) 751-4765

# TUBE-TECH



San Francisco's Full-Service  
Professional Audio Dealer

# AUDIO Images

- SALES AND SERVICE
- DESIGN AND INSTALLATION
- AUDIO FOR FILM AND VIDEO
- MULTI-TRACK RECORDING
- DIGITAL AUDIO WORKSTATIONS
- SOUND REINFORCEMENT
- COMPUTER MUSIC SYSTEMS
- TAPE AND ACCESSORIES

70 Oak Grove Street  
San Francisco, California 94107  
Fax: (415) 957-1531

**(415) 957-9131**

Circle #033 on Reader Service Card



## Digital Audio Tape

We have digital audio  
home, portable and professional  
cassette recorders and tapes  
(blank & prerecorded)  
**IN STOCK NOW!**

We were the first U.S.  
company to import both CD  
and DAT into the U.S. We carry  
various DAT decks and  
offer the latest models  
as soon as they become  
available.

## Audio Gallery

(213)  
**829-3429**

2716 Wilshire Blvd.  
Santa Monica, CA 90403

BEDINI — PCM's — STAX  
MICRO SEIKI TURNTABLES  
SAEC — HIGHPHONIC  
INTEGRAL AUDIO

Circle #034 on Reader Service Card

## POST · SCRIPT

matically, and we churned out a one-minute spot every 67 seconds. And the client sat there with his mouth open, amazed, as it happened."

### WE ALL LIVE IN A YELLOW JUKEBOX

Creating the music for *Shining Time Station* was a collective effort with Horelick at the helm. There were 20 songs and 12 music videos (animated by Paul Fierlinger) to be written and recorded for the initial run. Horelick did the music for four and supervised the others.

Railroads are the theme of the show, so Horelick began at the Lincoln Center Music Library, researching old American folk songs about railroads and railroading. He looked mainly for songs in the public domain to avoid licensing complications. ("You'd be amazed at how many railroad songs you know that are still held under copyright," he says.) Luckily, a friend who turned out to be something of an authority on American folklore and music introduced him to a wealth of tunes just as the search was beginning to get frustrating. "The folk/railroad tradition in this country is very rich," says Horelick of his travails. "We tend to forget about it in our modern lives, but railroads and trains played a big part in shaping the country. There were many beautiful songs written about them. So I didn't want to do a typical kids' thing. I wanted something new and innovative."

After making his selections and comparing them to the program's scripts, Horelick selected 25 songs to present to the show's producers. Freelance arranger Larry Wolf and Horelick then began recording with musicians, the Fairlight and a few acoustic and electric instruments.

After the tunes were finished they were brought to the Manhattan Telecommunications Inc. (MTI) soundstage, where puppeteers Craig and Ola Marin of Flexitoons had created a puppet band to perform on the show. The Marins took pains to create visual personalities for their musicians, and Horelick felt equally compelled to give them musical personas as well. "The members of the puppet band are a diverse crew," he explains as perhaps only a parent can. "There's this black gospel/funk woman named Grace the Bass, and DiDi the teeny-

bopper drummer." A Latin piano player named Tito Swing (who resembles Victor Borge on a tequila-and-ether binge) and a pair of guitarists who together play one guitar, the Boy Brothers, Tex and Rex (voices by New York session singer Rory Dodd), round out the quintet. They reside in an old jukebox.

"They wanted a varied and diverse influence musically on the show," says Horelick. He farmed the song and scoring work out to several composers, including Liz Swados and the late Joe Raposo. Then he distributed the fruits of his research labors among them. "We took these beautiful, old train songs and kind of bent them out of shape," he says. "Like 'Oh, Susanna,' where we did a wild kind of Broadway version, and we did 'Camptown Races' and made it sort of Steely Dan."

The music videos are animated to fit the music productions, and Horelick cites Michael Jackson and Bruce Hornsby as musical influences. He takes pains to point out that the songs are not intentionally didactic, yet they reflect the messages contained in the scripts. "My own kids would never let me get away with that kind of condescension," he says.

Horelick adds that he took his musical cues from the characters and their actions, but strove not to make the songs an exact copy of the action. "I don't like teaching," he says. "I like using music for entertainment. I don't think there's such a thing as children's music. But I think there is such a thing as children's lyrics. I believe children can absorb a lot of sophisticated production."

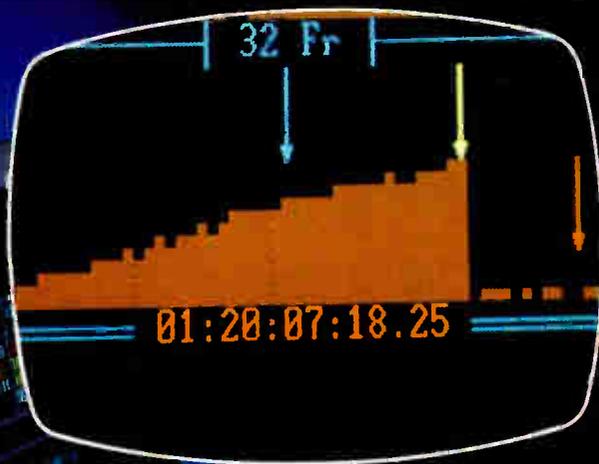
The production values on the songs for *Shining Time Station* tend to be understated; the arrangements are simple, straightforward, sincere and clean. They alternately belie the level of technology that has gone into making them, and reflect the ease and familiarity with which that technology was implemented.

Ultimately, Horelick feels that *Shining Time Station* is a considerable accomplishment for both its producers and for him. "I consider it a huge success in that we created a real musical character for the puppet band," he says. "I think it will become something of a classic, as it has in England." ■

*Dan Daley is a Mix contributing editor. He prefers his puppets in government.*

# C:SOUND Graphic Audio Editing

First Time.



Every Time.

## The 2600 A/V Audio-for-Video Editor

**Imagine** spotting effects to 0.1-frame accuracy. Perfectly. The first time. Every time. In half the time.

**Imagine** ADR and Foley on the first try.

**Imagine** conforming 100-plus edits of original audio from a video EDL by pressing a single key.

**Imagine** all this—and more—with just one addition to your conventional analog or digital studio hardware.

The ADAMS-SMITH 2600 A/V Audio-for-Video Editor

**It boggles the imagination.**



**ADAMS · SMITH**

34 Tower Street, Hudson, MA 01749 Tel: 617-562-3801 FAX: 617-568-0404 TLX: 920087

## MAJOR BREAKTHROUGH IN MUSIC TECHNOLOGY

Los Angeles, CA - Hybrid Arts, a leader in music computer technology, has again made history with the introduction of ADAP II...the direct to hard disk digital audio recorder/editor. ADAP is the acronym



for Analog to Digital Audio Processor. In short, ADAP is a digital mastering device and audio work station, a 16 bit stereo sampler, a visual non-destructive sound editor with sample precise accuracy, a MIDI module, a SMPTE trigger, full EDL (Edit Decision List), a cue system and much more.

ADAP delivers all the advantages of digital audio recording at a very affordable price. Among the extensive list of outstanding features, ADAP offers the user the ability to edit, manipulate and process sound without any loss of fidelity. And, by storing your original tracks in memory, you can perform multiple edits, add new sounds or sweeten...completely non-destructively.

ADAP has more speed, power and versatility than any tape-based system or even other digital recorders saving you valuable time, energy and money. For example, matching audio to visual hits via SMPTE can be performed instantly because ADAP responds in real time.

These features can be fully realized when performing editing functions. ADAP offers independent left and right channel editing. Multiple edit windows allow you to transfer sounds between files where they can be combined and manipulated in a variety of ways without clicks, glitches or other unwanted noises. One feature that you're sure to appreciate is being able to see the X-cursor which displays its exact position in

real-time or SMPTE code during record or playback. ADAP gives you the ability to drop and name markers at any point. These markers are your edit points and can be referenced quickly and accurately with auto-locate for editing or playback of specific ranges. The zoom feature allows you to 'zoom-in' on any part of the sound file wave form or amplitude display for precise editing. This close-up view of the sound enables you to move your markers with microsecond precision. The cut, copy, paste, and insert time are valuable editing functions that give you complete control.

ADAP's optional AES/EBU digital interface and direct to disk capability makes it one of the few systems available for R-DAT editing (48 kHz sample rate) where the audio is kept completely in the digital domain. When compared with devices costing many times the price, ADAP stands

up as one of the most flexible, capable and advanced systems available.

Here are just a few of the possible applications: For film/video post-production...ADAP is unsurpassed in speed and ease for effects editing, background looping, dialog, dialog fill or electronic Foley. For recording studios...it's used as a one shot sampler to fly in vocals, retune sections of music or create extended mixes. For musicians & sound designers...it's a high quality MIDI performance sampler and digital synthesizer. For radio stations...it's the ultimate commercial spot production system.

ADAP is available as a stand alone product or can be supplied to order in a variety of turnkey system configurations.

**Hybrid Arts, Inc.**  
11920 W. Olympic Blvd.  
Los Angeles, CA 90064  
(213) 826-3777

# HANDS - ON SOUND



## ADAP II THE DIRECT TO HARD DISK DIGITAL RECORDER & EDITOR

*Now you can manipulate sound like never before...ADAP gives you the power and the speed. Professional quality too...over 50 minutes of stereo digital audio at 44.1 kHz.\* A 'must-have' tool for recording studio, post production, broadcast, sound design, live performance or other demanding applications.*

- ▼ Immediate, sample precise, non-destructive editing
- ▼ CD-ROM support, DAT editing & CD quality mastering
- ▼ Variable recording and playback rates
- ▼ Multiple windows with cut, paste, insert time and channel independent editing
- ▼ Versatile SMPTE cue list triggering and implementation
- ▼ Lightning fast operating system

*All this and more...at a price that's music to your ears!*

*\*With our 760 megabyte drive*

**Hybrid Arts, Inc.**

11920 W. Olympic Blvd. ▼ Los Angeles, CA 90064 ▼ Main Office: (213) 826-3777

# 1989 MIX DIRECTORY

# NORTHEAST

## STUDIOS

Information in the following directory section is based on questionnaires mailed earlier this year and was supplied by those facilities listed. Mix claims no responsibility for the accuracy of this information. Personnel, equipment, locations and rates may change, so please verify critical information with the companies directly.



Originally built in 1978 by John Storyk, Horizon Studio was rebuilt late last year by co-owner Vic Steffens with acoustical design assistance from Storyk. The centerpiece of the control room is a 44 x 24 Allen & Heath Sigma console with built-in mute automation run from either a Mac or an Atari ST. The facility is used for both live and MIDI productions, making use of an adjacent 875 square-foot live room with c 14-foot ceiling and a full MIDI facility in the control room. Photo: Tracey Kroll

## CONTENTS

|     |                       |
|-----|-----------------------|
| 154 | BUSINESSPAGES!        |
| 156 | LOCATION INDEX        |
| 158 | 24+ TRACK STUDIOS     |
| 178 | 12 & 16 TRACK STUDIOS |
| 182 | 4 & 8 TRACK STUDIOS   |

Mix listings procedure: Every month, Mix mails questionnaires to recording studios and/or other vital facilities and services for the recording, sound and video production industries. There is a nominal charge to list a Boldface Listing (name, address, contact) and an Extended Listing (equipment, credits, specialization and photo or logo). If you would like to be listed in a Mix Directory, write or call the Mix Directories Department, 6400 Hollis Street #12, Emeryville, CA 94608; toll free 800-344-LIST!

### Upcoming Directory Deadlines:

Facility Designers & Suppliers: **May 16, 1989**  
 Professional Audio Manufacturers: **May 16, 1989**  
 Southern California/Hawaii Studios: **June 16, 1989**  
 Far East Production Companies: **June 16, 1989**  
 New Products/AES Issue: **July 17, 1989**

## AUDIO POST INC.

27 E. 21st St., New York, NY 10010 (212) 475-3522 FAX: (212) 674-0788

Audio Post is renowned in the music industry for creating top-quality audio-for-video destined to be heard over high-tech systems and TV speakers. Custom designed with consultant Francis Milano from *Invue Sound*, Audio Post is based on a unique concept of a no-compromise audio control room in a video environment — with an impressive array of audio equipment. Clients come to Audio Post for video editing, sampling rate conversions, digital format transfer and resync/remastering audio and video.

We can transfer digital to digital, from the 1630 to the BVH-2800 and vice versa — at any sampling rate. Two D2 format machines arrived in early February.

Although other facilities in town have these machines, few have the required input/output

boards to perform the different transfers and still stay phase-locked to the original signal.

When it comes to perfecting audio for video post-production, our team expertise in both analog and digital realms is unparalleled; no other facility offers the digital processing capabilities we do.

Unlike other typical audio-for-video post houses, Audio Post was constructed with unique attention to acoustics, including 18-foot ceilings in the control room. All our clients agree that our facility's audio monitoring system is unsurpassed in the industry.

For further information, please call Ed Steinberg.

# AUDIO POST



## FUTURE DISC SYSTEMS

3475 Cahuenga Blvd. West, Hollywood, CA 90068  
(213) 876-8733 FAX: (213) 876-8143

Future Disc Systems provides full digital and analog mastering and complete digital editing for compact disc, record, R-DAT and cassette. **Facility Managers:** Gary Rice and Kim Hahn. **Receptionist:** Laura Gonzales. **Engineers:** Steve Hall, Tom Baker, David Hernandez and Gary McGachan.

Future Disc is comprised of two custom mastering suites. Analog consoles are equipped with Sontec equalizers and compressor/limiters. There are Studer and Ampex tape machines. Cutting lathes are Ortofon and Neumann. The Harmonia Mundi digital console

contains digital equalization, limiting and digital level controls. A full compliment of Sony and Harmonia Mundi digital gear can be used to keep your digital product within the digital domain while being processed. We also specialize in digital editing, allowing for creative and exact edits and assembly for your compact disc masters.

We are proud to be involved in the mastering of many major projects, including: *Bobby Brown, Traveling Wilburys, Paula Abdul, Sheena Easton, Karyn White, Tom Petty, and the Jacksons.*



### Services & Equipment Offered:

**Owners:** Joe Alexander, Mitch Goldfarb, Sam Moses, Kurt Shore. **Studio Manager:** Monica Tannian. **Dimensions:** Control Room A: 25' X 20', Studio A: 35' X 30' X 13'. Ambient Room: 50' X 35' X 25'. Control Room E: 22' X 20', Studio E: 35' X 20' X 15. **Consoles:** SSL4048 with Total Recall, Sony MXP3036. **Audio Recorders:** Otari MTR-90, Studer A80, Sony/

MCI JH-24, Studer A80 2-Trk 1/2", Studer B67 2-track 1/4", Otari MTR-10 2-track 1/4" with Dolby SR. **Auxiliary Equalization:** Focusrite, Massenburg, API, Pultec. **Main Reverb/Delay Systems:** AMS RMX, AMS DMX, Lexicon 480L, EMT 251, Sony DRE-2000. Vintage mics, compressors and amps. **Other:** two bedroom luxury condo with indoor/outdoor swimming pool available.

## KAJEM VICTORY

1400 Mill Creek Road  
Gladwyne, PA 19035  
(215) 642-2346  
FAX: (215) 923-1280

ARM, MIDI, APPV

Kajem Victory is one of the country's premier residential studios. Located in a secluded War gun factory amongst woods and waterfalls, Kajem's famous "Ambient Drum Room" (50' X 35' X 25') is the talk of rock and roll: *Cinderella, Queensryche, Metalchurch, Warlock, Tangier, Faith n' Fear, Dream Theater.*

Additionally, 48-track SSL w/ Total Recall facilities and Focusrite, Massenburg EQ plus a host of outboard gear makes Kajem Victory an ideal mix room. MIDI facilities and VAPP are also available.

**BUSINESSPAGES!**

World Radio History



# NORMANDY SOUND, INC.

25 Market St.  
Warren, RI 02885  
(401) 247-0218

**ARM, MIDI, APPV, APPF**

Normandy Sound is a no-compromise music production facility — from our SSL 4000E w/ Total Recall, to our Focusrite 110 EQ rack, our AMS reverbs and delays, or our enormous collection of Stephen Paul modified vintage tube microphones. No expense has been spared to give you sonic quality at its finest. Put this together with great acoustics and one of the nation's best engineering staffs and you have rock and roll history in the making.

**Services & Equipment Offered:**

**Mixing Consoles:** SSL 4000E w/Total Recall. **Audio Recorders:** MCI JH-24 24-Track (2), Studer A80 2-Track 1/2", Studer A80 2-Track 1/4", Scully 280B 2-Track 1/4", Sony PCM-2500 DAT. **Cassette Recorders/Duplicators:** Tascam 122 (3). **Synchronization Systems:** TimeLine Lynx synchronization module. **Echo, Reverb & Delay Systems, Outboard Equipment and Microphones:** see our

detailed *Mix* listing. **Monitor Amplifiers:** McIntosh, Ashly, Crown, QSC. **Monitor Speakers:** Custom UREI 813, UREI 813, Yamaha NS-10M studios, Auratone Supercubes. **Musical Instruments:** Yamaha C5 6'8" grand piano, Fender 1960 Stratocaster, Fender 1968 Precision bass, Oberheim DX drum machine, Seymour Duncan guitar amp, Scholz Rockman sustainer, Yamana acoustic guitar, Roland D-50.

## STUDIO SUPPLY COMPANY

1717 Elm Hill Pike, B-9, Nashville, TN 37210 (615) 391-0050  
FAX: (615) 391-4092 Dallas: (214) 358-0050

Since 1971, Studio Supply Company has designed and equipped studios for major artists and producers such as Willie Nelson, Mickey Gilley, Chips Moman, Paul Kennerley and Emmylou Harris, Frederick Knight, The Castle, Scene Three Video... the list goes on. Our most recent achievement is the creation of Studio Builders, a division of Studio Supply headed by John Alderson and Harold Lee Rekart. We have recently completed several studios for major artists and producers utilizing design and construction techniques that are not only quick to build, but affordable as well. This is achieved without cutting corners, using conventional techniques (this is not modular construction), but with no wasted time or materials. Our crew is on the

job site from start to finish, not on the other end of a pager or fax. We specialize in the medium-budget studio, but room performance, both in frequency response and reverb time, is accurate and predictable. And no AC hum or air conditioner noise. Finally, a way to have your studio built on-time, on-budget, and sonically on-the mark. For design, construction, new and used equipment, leasing arrangements or complete "turnkey," call us in Nashville or Dallas today.

**Studio Supply Company.** Since 1971, providing the professional audio industry with state-of-the-art acoustic design, professional equipment sales, service and installation.



## BusinessPages! Services Key

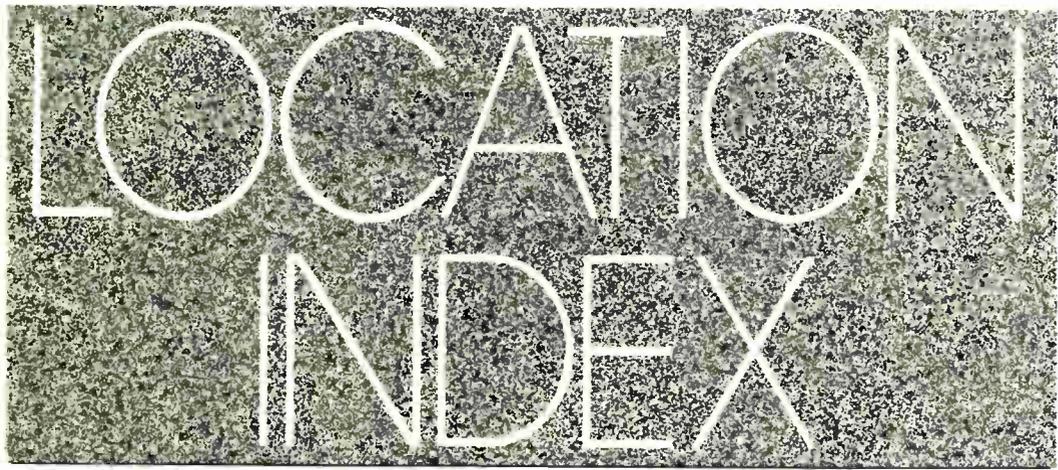
BusinessPages! half-page ads feature a box with letter abbreviations for the types of services the advertiser offers. The key to these business services is as follows:

- |                                             |                                            |
|---------------------------------------------|--------------------------------------------|
| <b>ARM</b> Audio Recording, Music           | <b>MIDI</b> MIDI Production                |
| <b>APPV</b> Audio Post-Production for Video | <b>APPF</b> Audio Post-Production for Film |
| <b>VP</b> Video Production                  | <b>SDS</b> Studio Design/Supply            |
| <b>TD</b> Tape Duplicating                  | <b>CDP</b> Record/CD Pressing              |
| <b>CDM</b> Record/CD Mastering              | <b>RLR</b> Remote/Location Recording       |
| <b>SR</b> Sound Reinforcement               |                                            |

BusinessPages! ads are available in both 1/4 - and 1/2 - page units; all production costs for ad preparation are included in the low ad rates (including color separations from supplied photo or logo). For complete information on how your facility can have a low-cost, four-color BusinessPages! ad, contact *Mix* Directories toll-free: (800) 344-LIST. All space reservations and materials are required by the **seventh** of the **month**, two months prior to publication.

## BUSINESSPAGES!

# NORTHEAST STUDIOS



All information listed has been supplied by studios responding to questionnaires mailed in December. Please verify critical information with the studios directly. *Mix* does not take responsibility for the accuracy of the information.

**CONNECTICUT**

**Bridgeport**

16 Studio Unicorn ..... 180

**East Haven**

24 Presence Studios ..... 171

**Hamden**

24 Grace Recording Studio, Inc ..... 165

**Hartford**

24 Media Arts Center/Nickel Records ..... 168

**Southbury**

24 RBY Recording and Video ..... 172

**Stamford**

24 Blank Productions ..... 161

24 Carriage House Studios ..... 161

24 P&P Studios, Inc ..... 170

**Wallingford**

16 Avid Recorders ..... 178

**Weston**

24 Reel Hits ..... 172

**Wilton**

24 Horizon Recording ..... 166

**DISTRICT OF COLUMBIA**

**Washington**

16 AJRA: The American University Recording Associates ..... 178

24 Lion & Fox Recording, Inc ..... 167

24 Premier Recording, Inc ..... 171

24 Rodel Audio Services ... 173

24 Sonic Images Productions, Inc ..... 173

24 Soundwave Inc ..... 175

**DELAWARE**

**Newark**

16 Sound Lab Productions ..... 180

16 Target ..... 181

**MASSACHUSETTS**

**Agawam**

24 New Music Studios ..... 169

**Boston**

24 Downtown Recorders ... 164

16 Fantasia Productions ... 179

16 Goin' Mobile ..... 179

24 Newbury Sound, Inc ..... 169

24 Soundmirror, Inc ..... 175

24 Soundtrack/Boston ..... 175

24 Syncro Sound ..... 176

24 Syntex ..... 176

24 Tandem Recording Studio ..... 176

24 WGBH ..... 177

**Brighton**

8 Selcer Sound ..... 182

**Brockton**

16 First Impressions ..... 179

**Cambridge**

8 HBS Productions, Inc. ... 182

**Carlisle**

24 Blue Jay Recording Studio, Inc ..... 161

**Dalton**

16 Derek Studios ..... 178

**Hanson**

24 Courtlen Recording ..... 162

**Lanesboro**

24 Spectrum Recorders ... 175

**Medfield**

24 New England Sound ... 168

**Newton**

16 Syntune ..... 181

**North Brookfield**

24 Long View Farm ..... 166

**Northborough**

16 Eskimo Studio ..... 179

**Revere**

8 Audiotrax ..... 182

24 Euphoria Sound Studio... 165

**Shrewsbury**

24 Northeastern Digital Recording, Inc ..... 169

**Stow**

24 New England Mobile Recording ..... 168

**Westford**

24 Mission Control ..... 168

**Worcester**

24 Lyx Music Production & Recording Studios ..... 168

**MARYLAND**

**Baltimore**

8 The Commercial Refinery, Inc ..... 182

24 East Coast Sound Lab ... 164

24 The Mainframe ..... 168

24 Peabody Recording Studios ..... 170

**Bethesda**

24 Balance Sound Studios ..... 159

**Columbia**

16 Roar Productions Recording and Musical Services.... 180

**Fort Washington**

16 Red Apple Worx, Inc ..... 179

**Galtersburg**

16 Paradox Productions, Inc ..... 179

**Gambrills**

12 Thunderbird Sound Studios ..... 181

**Germantown**

2 6/8 Studios ..... 182

**North Bethesda**

24 The Power Plant Recording Studios of America ..... 171

**Phoenix**

24 Sheffield Audio/Video Productions ..... 173

**Potomac**

2 Jack Daniels Productions ..... 182

**Rockville**

16 Bebop Productions ..... 178

24 Hit And Run Studios, Inc ..... 166

24 Omega Recording Studios ..... 169

**Salisbury**

16 Seagull Studios—A Service of WSCL Radio ..... 180

**Silver Spring**

24 Central Studio ..... 162

24 Sound Logic Studios, Inc ..... 174

**Wheaton**

24 Pro Audio/Big Mo Recording ..... 172

**MAINE**

**Elliot**

16 Rama Dama Records ... 179

**Portland**

16 Creative Recording ..... 178

24 Megaphone ..... 168

**NEW HAMPSHIRE**

**Exeter**

8 Airborn Recording Studio ..... 182

**Hampton Falls**

16 Sunset Ridge Recording ..... 181

**Manchester**

24 ShootingStar Recording Studio ..... 173

**Milford**

16 Sound Lab Studios—Star Struck Productions ..... 180

**Portsmouth**

24 Fishtraks ..... 165

**NEW JERSEY**

**Belleville**

24 Legend Recording Studios ..... 167

**Berlin**

16 T.M.P. Recording ..... 181

**Caldwell**

24 Taylor-Made Productions ..... 176

**Cinnaminson**

16 Mirror Sound Studios... 179

**Elmwood Park**

8 Panetta Studios ..... 182

**Englewood**

24 Hillside Sound Studio ... 166

**Englewood Cliffs**

24 Van Gelder Recording Studio, Inc. .... 177

**Garfield**

24 Creative Music Factory (formerly Sanman Productions, Inc.) ..... 164

**Jersey City**

24 Quantum Sound Studios ..... 172

**Lodi**

24 Reel Platinum Studios, Inc. .... 172

**Manasquan**

24 Chalet Sound Studio ... 162

**Metuchen**

8 Bradwood Studios ..... 182

8 Joyful Noise Studio ..... 182

8 OEC Recording ..... 182

**Morristown**

24 Tullen Sound Recording ..... 177

**Newark**

24 Power Play Records, Inc ..... 171

**Oceanport**

8 Firehouse Studios ..... 182

**Paramus**

4 Scott Gordon Enterprises, Inc ..... 182

**Paterson**

24 Bloya Recording Studios ..... 161

**Saddle Brook**

16 Clearcut Recording ..... 178

**Sparta**

8 Get Out of the Way ..... 182

**Vincetown**

24 Wildfire Recording ..... 178

**Wayne**

24 The Barge Sound Studio, Inc ..... 159

**West Milford**

24 Twain Recording ..... 177

**West Orange**

24 House of Music, Inc. .... 166

**Westfield**

16 TechniSound Productions, Inc ..... 181

**Woodbridge**

24 London by Night Productions ..... 167

**NEW YORK**

**Albany**

**Astoria**

24 Master Sound Astoria ... 168

**Bardonia**

16 Reel World Music Studios ..... 179

**Bayside**

24 Bayside Sound Recording Studios ..... 159

2 Queens Studio of Joe Siegel, Inc ..... 182

**Bearsville**

24 Bearsville Studios ..... 159

24 Dreamland Recording ... 164

**Braher Falls**

24 Assembly Recording Co (Division of PMI) ..... 158

**Brooklyn**

8 Demo-Vox ® Sound Studio D-V-X Int'l Video ..... 182

16 Grampa Studios ..... 179

24 Sound Lab Studios Ltd. .... 174

8 Strobe-Light Sound Studio ..... 183

**Deer Park**

16 C.M.A. Inc ..... 178

**East Northport**

24 Rockin' Reel Recording Studios ..... 173

**East Syracuse**

16 Eastwind Recording ..... 179

**Endwell**

8 Audio Arts Recording Studio ..... 182

**Fishers**

16 Cabin Fever Recording ..... 178

**Flushing**

24 ASL Mobile Audio ..... 158

**Fredonia**

24 Mason Hall Recording Studios ..... 168

**Garnerville**

24 Tamarand Digital Recording ..... 176

**Glen Cove**

24 Cove City Sound Studios, Inc ..... 162

**Glen Cove, L.I.**

24 Tiki Recording Studios, Inc ..... 177

**Great Neck**

24 Secret Sound Studio, Inc ..... 173

**Huntington Station**

24 Backdoor Recording Studio, Inc ..... 159

16 Island Sound Co. .... 179

**Irvington**

24 A.D.R. Studios, Inc. .... 158

**Ithaca**

24 Pyramid Sound, Inc ..... 172

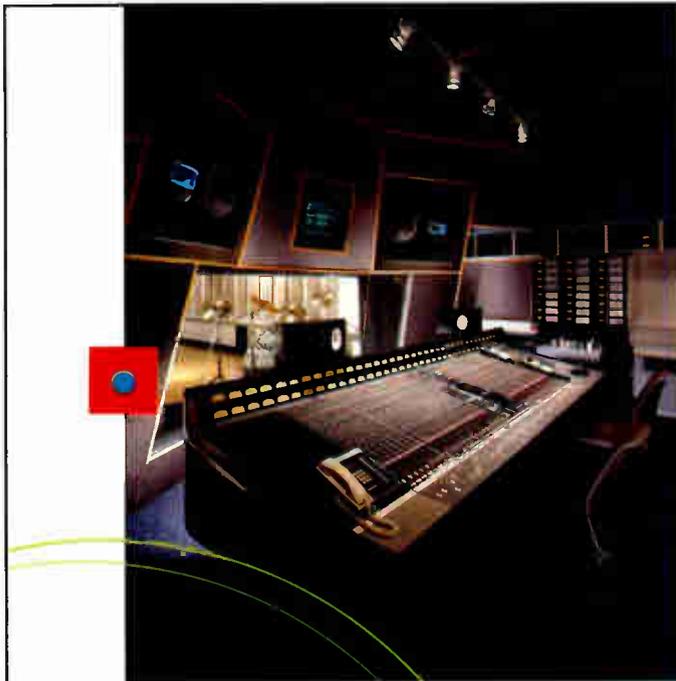
**Jamestown**

8 Music Unlimited ..... 182

**Lk. Ronkonkoma**

24 Paris Recording ..... 170

|                                             |                                                       |                                                                  |                                                  |                                                      |
|---------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------|
| <b>Long Island</b>                          | 24 The Hit Factory, Inc. .... 166                     | 8 Studio Pass aka The Public Access Synthesizer Studio ..... 183 | <b>White Plains</b>                              | 7 Narberth                                           |
| 24 Power Play Studios ..... 171             | 24 The Hit Factory, Times Square, Inc. .... 166       | 24 Sunset Productions ..... 175                                  | 24 Minot Sound Studios, Inc. .... 168            | 4 Masters By Johnson ..... 182                       |
| <b>Mamaroneck</b>                           | 24 I.N.S. Recording ..... 167                         | 24 Sync Sound, Inc. .... 175                                     | <b>Williamsville</b>                             | <b>Norristown</b>                                    |
| 24 ACME Recording Studios, Inc. .... 158    | 24 Kamen Recording Studios ..... 167                  | 24 39th Street Music ..... 176                                   | 24 Rain Media Productions ..... 172              | 16 Music Factory Enterprises, Inc. .... 179          |
| <b>Mohagan Lake</b>                         | 24 Manhattan Center Studios ..... 168                 | 24 This Way Productions, Inc. .... 176                           | <b>Woodside</b>                                  | <b>Northumberland</b>                                |
| 8 Burelio Sound Enterprises ..... 182       | 16 Manhattan Digital Recording Studios, Inc. .... 179 | 24 Unique Recording Studios, Inc. .... 177                       | 16 Star Base Studio ..... 180                    | 24 Susquehanna Sound .... 175                        |
| <b>Mt. Kisco</b>                            | 24 Manhattan Recording Company, Inc. .... 168         | 24 Videomix ..... 177                                            | <b>Woodstock-Willow</b>                          | <b>Philadelphia</b>                                  |
| 8 Street Sounds Studio ..... 183            | 24 Marathon Recording Studios ..... 168               | 8 Walker and Six Studio ..... 183                                | 24 Grog Kill Studio ..... 166                    | 24 Chestnut Sound, Inc. .... 162                     |
| <b>New Rochelle</b>                         | 2 Masterdisk Corp. .... 182                           | 16 Westrax Recording Studios ..... 181                           | <b>Yonkers</b>                                   | 24 Modern Audio Productions ..... 168                |
| 16 Thursday Productions ... 181             | 8 MPC Recording Studios ..... 182                     | <b>Ossining</b>                                                  | 16 Reeves Audio Recording ..... 180              | 8 Studio Red ..... 183                               |
| <b>New York</b>                             | 16 New York Audio Productions ..... 179               | 16 Sing Sing Studios, Inc. .... 180                              | <b>PENNSYLVANIA</b>                              | 24 Victory (a subsidiary of Kajem Victory) ..... 177 |
| 24 Atlantic Recording Studios ..... 158     | 24 On Broadway, Inc. .... 170                         | <b>Paleenville</b>                                               | <b>Barto</b>                                     | 24 Warehouse Recording/ J.E.M. Sound ..... 177       |
| 24 Audio Antics West ..... 158              | 24 Penny Lane ..... 170                               | 8 The Turning Mill, Inc. .... 183                                | 8 Muttley Music Machine ... 182                  | <b>Pittsburgh</b>                                    |
| 24 Baby Monster Studios ..... 158           | 24 Photomagnetic Sound Studios ..... 170              | <b>Poughkeepsie</b>                                              | <b>Bethel Park</b>                               | 24 Air Craft Studios ..... 158                       |
| 24 Cedar Sound ..... 162                    | 24 Planet Audio-Video Recording Studios ..... 170     | 16 Soundscape Recording Studio, Inc. .... 180                    | 4 Cyrus Sound ..... 182                          | 8 Audible Images ..... 182                           |
| 24 Chung King House of Metal ..... 162      | 24 Platinum Island Recording Studios ..... 170        | <b>Rochester</b>                                                 | <b>Bryn Mawr</b>                                 | 24 Erny Recordings ..... 165                         |
| 24 Ciani/Musica Studios .... 162            | 24 Power Station Recording, Inc. .... 171             | 24 Dynamic Recording ..... 164                                   | 24 Chris Gately Audio Services ..... 165         | <b>Plains</b>                                        |
| 8 City Sound Productions ..... 182          | 16 P.P.I. Recording ..... 179                         | 24 Funky Records Recording Studios ..... 165                     | <b>Chester</b>                                   | 24 Brighton Recording ..... 161                      |
| 24 Clinton Recording Studios, Inc. .... 162 | 24 Prime Cuts Studios, Inc. .... 171                  | 24 PCI Recording ..... 170                                       | 24 The Sound Spa ..... 174                       | <b>Royersford</b>                                    |
| 24 Creative Audio ..... 164                 | 24 Ready Or Not Productions ..... 172                 | 8 Frank Scheidt Audio Productions, Inc. .... 182                 | 16 Widener University Recording Studio ..... 181 | 24 Iris Sound ..... 167                              |
| 24 Crystal Sound Recording, Inc. .... 164   | 24 RPM Sound Studio, Inc. .... 173                    | <b>Roslyn Heights</b>                                            | <b>Erie</b>                                      | <b>Saylorsburg</b>                                   |
| 24 D&D Recording ..... 164                  | 24 Sear Sound ..... 173                               | 24 Sabella Recording ..... 173                                   | 8 Honey Bear Recording Studio ..... 182          | 24 Red Rock Recording Studio ..... 172               |
| 24 Edge Track ..... 164                     | 2 Seltzer Sound ..... 182                             | <b>Saugerties</b>                                                | <b>Folsom</b>                                    | <b>Sellersville</b>                                  |
| 24 Edison Recording Studio ..... 164        | 24 Servi Sound, Inc. .... 173                         | 16 Midnight Modulation ..... 179                                 | 16 Strata Studios ..... 180                      | 24 DAK Audio ..... 164                               |
| 24 Electric Lady Studios ..... 164          | 24 Skyline Studios ..... 173                          | 24 Neveva Production ..... 168                                   | <b>Gladwyne</b>                                  | <b>RHODE ISLAND</b>                                  |
| 16 Electro-Nova Studios ..... 179           | 24 Sorcerer Sound ..... 174                           | <b>Schenectady</b>                                               | 24 Kajem Victory ..... 167                       | <b>Pawtucket</b>                                     |
| 24 Evergreen Recording, Inc. .... 165       | 24 Sound On Sound Recording, Inc. .... 174            | 16 Electric City Sound ..... 179                                 | <b>Havertown</b>                                 | 24 Celebration Sounds ..... 162                      |
| 24 Giant Sound Recording, Inc. .... 165     | 24 Soundtrack ..... 175                               | <b>Sennett</b>                                                   | 8 PLH Recording Studio .. 182                    | <b>Warren</b>                                        |
| 24 Great Immediately Recording ..... 165    | 24 Studio 900, Inc. .... 175                          | 16 Spider Sound Studios ... 180                                  | <b>Honesdale</b>                                 | 24 Normandy Sound, Inc. ... 169                      |
| 24 Greene Street Recording ..... 165        |                                                       | <b>Soho</b>                                                      | 8 Cherry Productions Recording Studio ..... 182  | <b>VERMONT</b>                                       |
| 24 Hip Pocket Recording Studios ..... 166   |                                                       | 16 Czarist Music Productions ..... 178                           | <b>Lahaska</b>                                   | <b>Brattleboro</b>                                   |
|                                             |                                                       | <b>Staten Island</b>                                             | 24 Remote Recording Services, Inc. .... 172      | 24 Soundesign ..... 175                              |
|                                             |                                                       | 16 Laughing Dog Productions, Inc. .... 179                       | <b>Malvern</b>                                   | <b>Burlington</b>                                    |
|                                             |                                                       |                                                                  | 24 Forge Recording06 Studios ..... 165           | 24 White Crow Audio ..... 177                        |
|                                             |                                                       |                                                                  |                                                  | <b>Montpelier</b>                                    |
|                                             |                                                       |                                                                  |                                                  | 16 Backtracks Location Digital ..... 178             |





**Recording Studios**  
676 Broadway  
New York 10012  
212.473.9497

P  
L  
A  
T  
I  
N  
U  
M

i

s

l

a

n

d

**Carlos Alomar, Laurie Anderson, Hiram Bullock, Taylor Dane, Rick Derringer, Elliot Easton, Bernard Edwards, Roy Halee, Iggy Pop, Bill Laswell, The Latin Rascals, Mantronix, Branford Marsalis, Meatloaf, Nocera, Joyce Sims, Najee, School Daze, The System.**

● an oasis of art & technology

Circle #076 on Reader Service Card

# 24+ TRACK

## STUDIOS



**ACME RECORDING STUDIOS, INC.**  
Mamaroneck, NY

[24+] **ACME RECORDING STUDIOS, INC.**, 112 W. Boston Post Rd., Mamaroneck, NY 10543; (914) 381-4141. Manager: Peter Denenberg. Engineers: Rory Young, Peter Denenberg, Jay Brown, Andrew Bloch, Jon Wolfson, Bill Masters, Thom Leinboch. Dimensions: Room 1: studio 25 x 25, control room 12 x 18. Room 2: studio 12 x 12, control room 12 x 20. Room 3: MIDI studio 12 x 12. Mixing Consoles: (2) Syncon 28 x 24, English Consoles [all discrete] w/custom mute groups (studio A is automated), 32 channels SMPTE Basco VCA automation (computer Basco). Audio Recorders: Otari MTR-9011 24-track, Ampex 24-track, MCI 2-track 1/2", MCI 4-track 1/2", Ampex 440B 1/4". (2) Tascam 42 Dupe Masters, Sony PCM-701 digital mastering system. Cassette Recorders/Duplicators: TEAC, Yamaha. Noise Reduction Equipment: dbx 48 channels, Dolby SR and Dolby A for all 2-tracks. Synchronization Systems: BTX Shadow Echo, Reverb & Delay Systems: Lexicon 224 4.4, Lexicon PCM70, Lexicon PCM60, (2) Yamaha REV7, Eventide H3000 Ultra-Harmonizer, Lexicon PCM41, Lexicon Prime Time, various other delays. Other Outboard Equipment: Pultec equalizers, Lang equalizer, dbx 900 rack w/(3) compressor, (2) gate and de-esser, Valley People gates, UREI limiters and notch filters, Aphex Aural Exciters, Orban parametric EQ, White equalizers, Drawmer gates. Microphones: AKG "The Tube," Neumann U67 tube, (3) AKG 414, (2) AKG 451, (2) Neumann KM84, Neumann U87, (2) Crown PZM, (3) Shure SM57, (4) Sennheiser 421, AKG D-12, (2) Beyer MklII, (2) Calrec and others. Monitor Amplifiers: Yamaha, BGW, Crown. Monitor Speakers: 604E biamped custom cabinets, Tannoy, Yamaha NS-10, Auratone. Musical Instruments: Yamaha TX-812, Akai S900 sampler, Roland D-110, Steinway 1927 grand, Gretsch vintage drums, Yamaha DX7, Oberheim Xpander, many guitars and amplifiers available. Marshall, Fender, Mesa/Boogie, Schecter. Other MIDI Equipment: Complete MIDI room: Steinberg software, Atari ST computer, Commodore Amiga computer. Video Equipment: Sony monitors for sync playback, JVC 8250 3/4" VCR. Other: Super sexy light dimmers. Rates: \$125/hr. Block rates available. Specialization & Credits: Acme Studios overlooks the Long Island Sound and is 35 minutes from NYC. Client list includes: Warner Bros., Sire, Atlantic, Capitol, A&M, Island, Chrysalis, SOS, Rhino, Sonographica, Arista, Tommy Boy, Teldec, RCA, MCA, Polydor, Chetnick, Enja, Passport, CBS. Many gold and platinum recordings for artists like Atlantic Starr, The Roches, Willie Colon, Glenn Alexander w/Randy Brecker & Mino Cnelu, Company of Wolves, Cornell Dupree and Who'll It Is, Dirty Looks, Nana Vasconcelos, Devon Square, Jeff Beal, Samuel Zyman, Mitch Ryder, Nicolette Larson, Dr. John, Geri Allen, Roland Vazquez w/Anthony Jackson, Rob Mathes w/Wil Lee & Joe Bonadio, and the greatest food in the world is right up the street.

[24+] **A.D.R. STUDIOS, INC.**, also **REMOTE RECORDING**, Skylight Run; Irvington, NY 10533; (212) 486-0856. Owner: A.D.R. Studios, Inc. Manager: Stuart J. Allyn. Specialization & Credits: Very extensive microphone collection (over 200).

Microphones available for rent. Our services include music recording, mixing and production, scoring, sweetening and mixing for film and video; audio/video production assistance, and location recording. Our award-winning engineers are fully versed in all phases of sound recording and production. They are available for pre-production meetings and provide comprehensive follow-through of all audio elements. Our credits include: *Me and Him* (Columbia Pictures), *Set Sail and Sea Fans* (video series), Mel Lewis & The Jazz Orchestra 20 Years at the *Village Vanguard* (1987 Grammy nominee), Hall & Oates, Aerosmith, Billy Joel, Placido Domingo, James Galway, Lionel Hampton, The DukesMen, Taylor Wines, *Time* magazine, Lee Jeans, Coke, AT&T Communications, *Radio 1990* (USA TV), National Geographic specials (PBS), *Buddenbrooks* (PBS), Tony Awards shows (ABC), The Olympics (ABC), Camelot (HBO), Major League Baseball (NBC), World Wrestling Federation, etc.

[24+] **AIR CRAFT STUDIOS**, Dormont Square, Pittsburgh, PA 15216; (412) 343-5222. Owner: Lost In Music, Inc. Manager: Jon T. Arnold. Engineers: Barney Lee, Dean Becker, Ed Dukstein. Dimensions: Studio A Room 1: studio 19 x 30, control room 13 x 20. Room 2: studio 13 x 20. Mixing Consoles: Trident Series 80B 30 x 24 x 24. Audio Recorders: MCI JH-24 24-track, Sony 3402 2-track digital, Otari MTR-10 2-track, 1/2" 2-track digital Beta processors. Cassette Recorders/Duplicators: Tascam 122B, (21) Nakamichi MR-2. Synchronization Systems: Foxtec 4030/4050 synchronizer, Roland SBX-80 MIDI sync box. Echo, Reverb & Delay Systems: Lexicon 480L digital effects processor, (3) Yamaha SPX90II, Yamaha REV7, Lexicon PCM70. Other Outboard Equipment: (2) Valley People Gain Brain, (2) UREI LA-4 limiter, Orban 622B parametric EQ, Symetrix stereo gate, Aphex II Aural Exciter, (2) Drawmer DS201 gate, Orban sibilance controller. Microphones: AKG "The Tube," Neumann U89, (2) Neumann KM84, (2) Sennheiser MKH-40, Sennheiser MD-441, (5) Sennheiser 421, E-V RE20, assorted Sony, Shure, E-V. Monitor Amplifiers: Soundcraftsmen, (3) Crown, (2) SAE. Monitor Speakers: JBL 4430, (3) Yamaha NS-10M studio, Toa. Musical Instruments: Kurzweil K-250, E-mu SP-12 drum machine, Yamaha DX7 synthesizer, Baldwin 7' grand piano, Hammond B-3, Roland S-50, assorted guitars/amplifiers/etc., Tama, Slingerland acoustic drums. Other MIDI Equipment: Macintosh Plus computer, Southworth Jam Box/4 interface, Mark of the Unicorn Performer/Composer software. Video Equipment: Foxtec sync-to-video equipment. Rates: Call for rates.

[24+] **ARABELLUM STUDIOS**, 654 Sand Creek Rd.; Albany, NY 12205; (518) 869-5935. Owner: Art Snay. Manager: Yvonne Bautockha



**ASL MOBILE AUDIO**  
Flushing, NY

[24+] **ASL MOBILE AUDIO**, only **REMOTE RECORDING**; PO Box 791; Flushing, NY 11352; (718) 886-6500, FAX: (718) 886-7214. Owner: Aura Sonic Ltd.

[24+] **ASSEMBLY RECORDING CO. (DIVISION OF PMI)**; RR2 Box 162, Smith Rd., Brasher Falls, NY 13613; (518) 358-9517. Owner: Carl Patterson. Manager: Chrys Patterson.



**ATLANTIC RECORDING STUDIOS**  
New York, NY

[24+] **ATLANTIC RECORDING STUDIOS**, 1841 Broadway, New York, NY 10023; (212) 484-6093. Owner: Atlantic Recording Corp. Manager: Steven Bramberg. Dimensions: Studio A: 35 x 48, control room 17 x 22. Studio B: 18 x 33, control room 18 x 22. Studio C: 21 x 19, mix booth 9 x 13. Studio D: 16 x 13. Mixing Consoles: Neve 8078 52 x 32 (custom), Neve 8108 48 x 32 (Necam 96 automation), SSL 6000E 64 x 8 stereo (Total Recall), MCI 538 w/automation. Audio Recorders: (3) Sony 3324 24-track digital, (5) Studer A800 24-track multitrack, (5) Sony PCM-1630 2-track digital, Mitsubishi X-80 2-track, Studer A820 2-track, Studer A80 2-track, Studer A80 4-track. Cassette Recorders/Duplicators: (30) Tascam 122. Noise Reduction Equipment: (43) Dolby 361, (4) MICMIX Dynaflex D2B. Synchronization Systems: (6) TimeLine Lynx, (3) Audio Kinetics Echo, Reverb & Delay Systems: EMT 250, EMT 251, Sony DDV-1520, (5) EMT 140 stereo plates, (3) Eventide 1745A, (2) Lexicon 224X, Lexicon Super Prime Time, Lexicon PCM42, (2) Lexicon PCM70, (4) Korg SDD-3000, (2) Marshall AR300, Audio Digital TC-2, Audio Digital TC-3, Ursa Major SST-282, (5) AMS RMX 16, AMS DMX 15, Quantec QRS, (2) Yamaha REV7. Other Outboard Equipment: (2) Fairchild Instruments 670 compressor, (6) Spectra Sonics 610, (4) Magna-Tech comp, (6) Teletronix LA-2A comp, (16) UREI 1176L comp, (8) dbx 160 comp, dbx 160X comp, (10) Neve comp, Trident comp, UREI 1178, Publison America 90, (2) Eventide 2016, (3) Eventide H949, (2) Publison America DHM-89, EXR Exciter, (2) Eventide FL201, Eventide PS101, MXR phaser/flanger, (3) Scamp rack, (2) Valley People Dyna-Mite, TSC 618 Dyno-My Piano, (4) Drawmer DS-201 gate, (3) Valley People Kexep II rack, (26) Pultec EQ, (7) Lang EQ, (4) Neve EQ, (17) Dataronix 550A EQ, Barcus-Berry BBE-802, Yamaha SPX90II, Cello Audio Palette equalizer. Microphones: AKG 414, AKG 451, AKG C-33E, AKG D-12, Beyer M88, Beyer M160, B&K 4003, B&K 4004, (4) Crown PZM plate, E-V RE15, E-V RE16, E-V RE20, E-V RE55, Neumann KM86, Neumann U87, Neumann U89, Neumann U47, Neumann U67, Neumann KM84, RCA 44, RCA SK46, RCA 77, Sennheiser 415, Sennheiser 421, Sennheiser 441, (2) Sanken C41, Shure SM7, Shure SM57, Shure SM58, Shure SM81, Sony 37A, Sony C48, Sony ECM-50, (2) Telefunken 251 Monitor Amplifiers: (28) Bryston 4-b amp, Bryston 3B amps, (2) Studer A68, Crown D-150A, Crown DC-300A, (2) Halter amp. Monitor Speakers: (8) Yamaha NS-10M, (2) Dahlquist 20, (3) Visonik 7000, KEF 101, Tannoy SRM-12B, (4) UREI 813B. Hidey studio monitors. Musical Instruments: Synclavier Poly sampling, (2) Linn 9000 drum machine, (2) Marshall guitar amp, Polytone guitar amp, Music Man guitar amp, (2) Fender guitar amp, (2) Fender elec. piano, Steinway grand piano, La Diana grand piano, (2) Hammond B-3 organ w/Lesslie, Hohner clavinet, Yamaha DX7, Roland guitar amp. Video Equipment: (4) Sony monitor, (8) Sony BVU recorder. Other: (2) complete Neumann cutting room. Rates: Upon request. Specialization & Credits: Atlantic Studios is a full-service facility offering recording, post, CD and disc mastering rooms as well as duplication services. Studio is equipped in all analog and digital formats (featuring Sony products).

[24+] **AUDIO ANTICS WEST**, also **REMOTE RECORDING**; 156 W. 94th St.; New York, NY 10025; (212) 662-8685. Owner: Susan Winthrop

[24+] **BABY MONSTER STUDIOS**, 645 Broadway, New York, NY 10012; (212) 260-5226. Owner: Jamie Burgh. Manager: Suzy Gaal. Engineers: Steve Burgh, Dave Feliciano, Gil Abarbanel, Joe Hornof, Steve McAllister. Dimensions: Room 1: studio 16 x 21, control room 14 x 15. Room 2: studio 8 x 8, control room 14 x 13. Mixing Consoles: Trident Series 65 32 x 48, Soundtrax MRX 24 x 8 x 16. Audio Recorders: Sony JH-24 24-track, Sony APR-5002 2-track, Tascam 38 8-track, 3M M-64 2-track, Casio DA-1 R-DAT. Cassette Recorders/Duplicators: (2) Arwa AD-S15. Noise Reduction Equipment: dbx 8

channels. Synchronization Systems: Hybrid Arts SMPTE track program for Atari Mega 2 ST, Roland SBX-80. Echo, Reverb & Delay Systems: (2) Lexicon LXP-1 w/LARC, (3) Ibanez SDR-1000 digital reverb, (2) Yamaha SPX90 reverb, DigiTech DSP-128 reverb, (2) Roland SRV-2000 digital reverb, Korg DRV-1000 digital reverb, Alesis Microverb, Roland SDE-1000 digital delay, DigiTech RDS-1900 digital delay, DigiTech RDS 7.6 sampling delay, (2) Korg SDD-2000 sampling delay. Other Outboard Equipment: (3) MXR auto flanger, MXR auto phaser, (8) Valley People Gate gate, (2) channels DR gate, (2) Valley People Kepex gate, (2) Symetrix 525 gated compressor/limiter, (3) Pultec tube EQP-1A, (2) Pultec tube EQH-2, Pultec tube MEQ-5, (4) channel Algate, (4) Lang PEQ-2, Pultec HLF-3C, Lang LXQ-2 5-channel tube EQ, UREI 545 parametric EQ, Orban 622 B parametric EQ, Blonder Tongue tube graphic EQ, Teletronix LA-2A tube limiter, (2) UA LA-3A limiter, (2) UA LA-4, (5) UA 175B tube limiter, (4) 1176LN limiter, (2) dbx 160 limiter, (3) dbx 160X limiter, Symetrix CL150 limiter, (2) Electrodyne tube limiter/de-esser, RCA BA-6A limiter, (12) Langevin AM-16 mic pre. Microphones: (3) Telefunken U47, Neumann U48 tube, Neumann U67 tube, Neumann U64 tube, Neumann TLM170, AKG ELA-M250 tube, AKG C-12A tube, (2) AKG C-60 tube, (2) AKG C-414EB, AKG C-452EB, AKG C-451EB, AKG D-112, Beyer M260, (2) Beyer M88, Beyer M201, (4) Sennheiser MD-421, (3) Shure SM58, Shure SM57. Monitor Amplifiers: McIntosh 2205, Marantz 8B, Hill 300, QSC 31, Dynaco 120, Crown D-75. Monitor Speakers: Altec 604E w/Rane active time aligned crossover, Yamaha NS-10M studio, Auratone, Tannoy Gold 12" Coax, Electro-Voice 802. Musical Instruments: Steinway B grand piano, Yamaha DX7-IIIFD w/E, Yamaha DX7, Akai S900 sampler, Korg DDD-1 drum machine, Oberheim DX w/MIDI/tetra chips, Korg DDD-5 drum machine, Roland Juno-60 w/MIDI, (3) ESP electric guitar, Ludwig 6-piece drum kit, Heyman 6-piece drum kit. Other MIDI Equipment: Atari Mega 2 ST computer, IBM XT w/Voyetra MIDI interface, Yamaha MJCB MIDI patch, (4) Yamaha FB01, Roland pad 8 Octapad, Roland MKS-30 analog brain, Roland GM-70 guitar/MIDI, Korg DVP-1. Casio MIDI thru box. Video Equipment: JVC CR8250 3/4" deck, Sony Trinitron 17" monitor, VHS stereo recorder, Sharp Lyntron 14" monitor, JVC camera. Other: (9) Fender guitar amp (vintage), Marshall 172 SuperLead 100 w/4" 12" 30-watt celestions, Gallien-Krueger RB400 bass amp, Ampeg B15N jazz amp, (2) Ampeg '64 Gemini 1 guitar amp. Rates: \$60/hr. net 30 (\$40/hr. C.O.D.) Studio A \$40/hr. net 30 (\$25/hr. C.O.D.) Studio B. Specialization & Credits: Clients include: MagiCom Inc. (Super Bowl XXIII Half-time Show), Rick Rowe, Elektra/Nonesuch Records (Wayne Horvitz), SBK Entertainment (Adele Berte), Caroline Records (Pussy Galore, White Zombie), Enigma/Metal Blade Records (School of Violence), Radical Records (Keith Masco producer, Mondo Boffo, ICU), MiMu Productions (Miles Roston producer, Brian Kramer/Jr. Wells), AGF Entertainment (Steve Addabbo producer, Eric Andersen), Midnight Records (The Senders), 109 Records (The LoveLies), Clandestine Records (The Clan), Joe Gallant (Guiding Light), Important/Relativity Records (Prong, Agnostic Front), Skywalker International (Richard Gere), Willy Deville, SST Records (Elliot Sharp producer, Motungo), Roberto Zorzi (NAD), Coyote Records (Deep Six), Homestead Records (Nice Strong Arm), Peter Pan Industries (Ralph Stein), Dave McNair, Suzanne Fellini, Rebel Red Music (Kim Brown). We offer music production, arranging and musician contracting through producer, musician and arranger Steve Burgh whose credits include: Steve Forbert, Steve Goodman, Billy Joel, Gladys Knight, Phoebe Snow, Paul Anka, Richie Havens.

[24+] **BACKDOOR RECORDING STUDIO, INC.**; #1 2nd Ave.; Huntington Station, NY 11746; (516) 427-7006. Owner: Robert Minetta, Chris Pati. Manager: Chris Pati. Engineers: Bob Minetta, Chris Pati, John Tabacco. Dimensions: Room 1: studio 15 x 13, control room 17 x 9. Room 2: studio 10 x 8, vocal booth 4 x 6. Mixing Consoles: TAC Scorpion 28 x 24. Audio Recorders: Sony/MCI 24-track w/remote, Otari MX-5050 MkIII 8-track w/remote, Ampex AT700 1/2-track mastering, TEAC 25-2 w/dbx 1/2-track mastering, Sony digital mastering, Tascam 22-2 1/2-track recorder. Cassette Recorders/Duplicators: Nakamichi 2X-7, Sony K-75 TC, Otari DP-4050CZ duplicator. Noise Reduction Equipment: (8) dbx 900 module, (2) Phase Linear autocorrelator, Tascam stereo dbx. Echo, Reverb & Delay Systems: (2) Yamaha REV7, (2) Ibanez SDR-1000 stereo digital reverb, Yamaha PCM60, MXR01 digital reverb, Yamaha SPX90, Ecoplate III reverb, (2) DeltaLab ADM-1024, DeltaLab DL-1, ADA D640 digital delay, all guitar effects. Other Outboard Equipment: (4) dbx 160 compressor/limiter, dbx 161 compressor/limiter, (2) Aphex Type B Aural Exciter, (4) Omni Craft GT-4 noise gate, (4) Symetrix 544 noise gate, Scholz Rockman X100 studio, Scholz Rockman rack effect unit, (2) MXR 15-band stereo equalizer, Symetrix SE400 stereo parametric EQ, Ibanez 1/2 octave EQ, Garfield Drum Doctor. Microphones: (2) Neumann U87, (2) AKG C-414EB, (5) Sennheiser 421, (4) Shure SM57, (2) E-V RE20, (2) Sennheiser condenser mic, (2) Shure SM81, (3) E-V DS-35, (2) Crown PZM, Beyer M260 Dynamic. Monitor Amplifiers: Crown Micro-Tech 600, QSC power amp, Rane HC6 headphone amp w/AGK K240 headphones. Monitor Speakers: MDM TA-3 Calibration Standards, JBL 4312, Yamaha NS-10M, Toa 200-ME, Auratone cones, Eventide Sentry 5. Musical Instruments: Young Chang baby grand piano, Emax digital sampler, Yamaha DX7, Casio CZ-5000, Korg DW-8000, Roland Juno-106, Oberheim OBXa 120 program, Korg DDD-1 drum machine, LinnDrum machine, Simmons SDS9 electronic drums, Tama Superstar drums/Rototoms, Ibanez musician bass gui-

tar, Gibson Les Paul custom guitar. Other MIDI Equipment: Atari 520ST computer. Video Equipment: Basic video recording available. Other: Mesa/Boogie guitar amp, Marshall JCM-800 guitar amp, Fender Twin Reverb II guitar amp, Gallien-Krueger 250ML guitar amp, Yamaha B100-115SE bass amp. Rates: \$50/hr. Block rates available. Full production services.

[24+] **BALANCE SOUND STUDIOS**; 4917 Cordell Ave.; Bethesda, MD 20814; (301) 951-3900. Owner: Bob Waxman, Richard Waxman. Manager: Betsy Berlin. Dimensions: Studio 50 x 30, control room 28 x 16. Mixing Consoles: MCI JH-628 28 x 24 w/automation. Audio Recorders: MCI JH-24 24-track, Studer A807 2-track, (2) MCI JH-110 2-track w/center time code channel. Cassette Recorders/Duplicators: Nakamichi MR-2, (6) various. Synchronization Systems: J.L. Cooper PPS-100 MIDI/SMPTE converter. Echo, Reverb & Delay Systems: Lexicon 224X, (2) Lexicon LXP-1 w/Lexicon MRC MIDI remote control, Yamaha SPX90II, Yamaha REV7, Eventide H3000-S Ultra-Harmonizer, (2) Effectron I delay unit, (2) Effectron II delay unit, Effectron III delay unit, Eventide H910 Harmonizer. Other Outboard Equipment: Aphex Compellor 300, Aphex Aural Exciter Type B, Drawmer DS-301 dual gate, (4) Valley People Kepex II noise gate, (2) Valley People Maxi Q parametric EQ, (2) dbx 166 stereo compressor/limiter, Orban 424-A gated compressor/limiter/de-esser, (2) UREI LA-4 compressor/limiter, (2) UREI LA-3A leveling amplifier, UREI 1176LN peak limiter, MXR dual graphic EQ, J.L. Cooper PPS-100 MIDI/SMPTE interface, Yamaha MBV02 line mixer. Microphones: (2) Neumann U87, Neumann SM69, Neumann U67, (2) AKG 414, (2) Sony C-37P, (2) Sony ECM-33, (2) E-V RE20, (2) Shure SM81, (2) Shure SM57, (6) Sennheiser 421, Crown PZM. Monitor Amplifiers: Briston 4B, Crest 1501A, Crown DC-300A. Monitor Speakers: (2) UREI 813C, (2) Tannoy PBM 6.5, (2) Yamaha NS-10N, (2) Auratone, (2) Altec. Musical Instruments: Yamaha conservatory grand piano, E-mu Emax SE digital sampling keyboard, Sequential Circuits Prophet-2000 digital sampling keyboard, Roland RD-300 digital piano, Roland Jupiter-6 keyboard, Yamaha RX5 digital drum machine, E-mu SP-12 digital sampling drum machine. Other MIDI Equipment: Yamaha TX7 tone generator, Roland MT-32 sound module, IBM-compatible computer w/MIDI software, Boss BX-16 line mixer. Video Equipment: (2) Sony 3/4" U-matic player. Rates: The best 24-track deal in town!



THE BARGE SOUND STUDIO, INC.  
Wayne, NJ

[24+] **THE BARGE SOUND STUDIO, INC.**; 92 Lionshead Dr. W; Wayne, NJ 07470-4014; (201) 835-2538. Owner: Jim Barg. Manager: Jim Barg. Engineers: Jim Barg, John Williams, Denise Moser. Dimensions: Studio 17 x 27, control room 14 x 16. Mixing Consoles: Harrison 4032C 40 x 32. Audio Recorders: Studer A80VU MkIV 24-track, Studer A80VU MkIV 16-track, Studer A80R 2-track 1/4" and 1/2", Otari MX-5050 2-track, TEAC 3340 4-track. Cassette Recorders/Duplicators: Tascam 122B. Noise Reduction Equipment: dbx 150 30-channel Echo, Reverb & Delay Systems: Lexicon 224XL, Lexicon PCM70, EMT 140 w/New York Tech electronics, Roland SRV-2000, DeltaLab DL-2, (2) Korg SDD-3000, Roland SDE-1000, Eventide H910 Harmonizer, Yamaha REV7, TC Electronic 2290 delay/sampler, Yamaha SPX90. Other Outboard Equipment: (2) Eventide instant flanger, Loft flanger, (5) Aphex CX1 compressor/expander, (2) Drawmer gate, Aphex Compellor, (2) dbx 160 compressor, Orban 622B parametric EQ, Orban 516EC de-esser, Klark-Teknik DN3030 graphic EQ, EXR exciter, BBE 802. Microphones: (2) AKG C-414EB, (2) Neumann U87, (5) Shure SM57, E-V RE20, (2) Sennheiser MD-421, AKG D-12E, Beyer M88, (2) Beyer M500, Neumann KM84, (2) AKG C-505E, RCA 77-DX, AKG C-461, AKG 460EB, (2) Neumann TLM170. Monitor Amplifiers: Halper P-500, Crown DC-300A, (2) Yamaha PT100 (cue system). Monitor Speakers: (2) 604-based custom-built system, (2) Yamaha NS-10, (2) E-V Sentry 100A, (2) Realistic Minimus-7, Auratone, Tannoy PBM-8. Musical Instruments: Yamaha DX7, Yamaha TX816 rack, Ensoniq Mirage, Roland Juno-106, Roland MKS-70, LinnDrum w/MIDI, Kawai KG-2 grand piano, Hammond B-3 w/Leslie, Ludwig 5-piece drum set, assorted cymbals, misc percussion, Marshall 50/100-

watt head w/cabinet, Fender Concert amp, Roland D-550. Other MIDI Equipment: Macintosh Plus w/popular sequencing and library, Roland SBX-80 SMPTE/MIDI interface. Rates: On request, based on project requirements.

[24+] **BAYSIDE SOUND RECORDING STUDIOS**; also REMOTE RECORDING; PO Box 129, Bayside, NY 11361; (718) 225-4292; (718) 428-3791. Owner: Bayside Sound Recording Studio, Inc., David Eng. Manager: David Eng, Robin Feinberg. Engineers: Andre Debourg, John Ficarrutto, Peter Puleo. Mixing Consoles: MCI JH-636 automated. Audio Recorders: MCI JH-24 24-track w/autolocator II, MCI JH-110B 2-track 1/4", MCI JH-110 1-track 1/4", Otari MTR-12 2-track 1/2", Sony APR-5002H 2-track 1/2", (2) Panasonic 3500 DAT. Cassette Recorders/Duplicators: Sony, Aiwa, JVC, Pioneer. Synchronization Systems: Roland SBX-80 Echo, Reverb & Delay Systems: Lexicon 200, Lexicon PCM70, Lexicon PCM42, Lexicon Prime Time, Yamaha REV7, Yamaha SPX90II, Ibanez SDR-1000, DeltaLab DL-7, Korg, Strobtronics plate, tape echo, DigiTech Time machine 7.6 delay sampler. Other Outboard Equipment: Eventide 910, (2) UREI 1176, (5) dbx 160X, (8) Valley People Dyna-Mite, Korg digital voice processor, MXR flanger/doubler, (4) Orban parametric EQ, Orban paragratic EQ, Scholz Rockman distortion/chorus/delay rack, DigiTech multieffects processor. Microphones: Neumann U87, AKG 414, AKG 452, Sennheiser 421, E-V RE20, Shure SM57, AKG D-12, Neumann KM84. Monitor Amplifiers: (2) Crown PSA-2, Crown DC-300, Crown DC-75, Bryston, Phase Linear, Yamaha. Monitor Speakers: UREI, JBL, E-V, Westlake, Auratone, Yamaha. Musical Instruments: E-mu Emulator II, E-mu SP-12 turbo, E-mu Emax, Yamaha DX7, Yamaha DX100, Roland D-50, Roland Super Jupiter, Roland Jupiter-6, Roland Juno-60, Roland TR-808, Roland TR-626, Roland Pad-8, Roland MIDI guitar controller, Roland electric drums, Roland JC-120, Korg EX-8000, Ensoniq Mirage DSM-8, (2) Akai S900, Akai AX73, Sequential Circuits Prophet-5, Sequential Drumtrax, LinnDrum, Moog Minimoog, Mesa/Boogie, Fender Rhodes, Next sampler, Oberheim Matrix-6R, Akai MPC-60. Other MIDI Equipment: Roland SBX-80, Roland MSQ-700, Akai MP-4, J.L. Cooper MSB Plus. Other: (2) Macintosh Plus, Mark of the Unicorn Performer, Passport Master Tracks Pro, Drumfile, Opcode editors/librarians, Sound Designer. Specialization & Credits: Bayside Sound specializes in a relaxed, creative environment where you will receive the highest quality sound and services. It is known to be the best kept secret in all of New York. Our list of clients have proven this true: Full Force, Lisa Lisa and Cult Jam, UTFO, Weather Girls, Layola Jackson, James Brown, Dana Dane, Salt-N-Pepa, Sweet Tee, Kid and Play, Bad Boys, E.U., Kiss, Lillo Thomas, La La, Najee, Skyy, Jimmy Miller, Marshall Crenshaw, Cash Money, Hurby "Love Bug" Azor, Melody, Mantronix, Jill, 12:41, Krystol, Terumasa Hino, Carlos Alomar, Anthrax, Earl "The Pearl" Monroe, Darryl Strawberry, Eddie Palmieri, Paula Anderson, George Kranz, Kid Flash, Whodini, Johnny Thunders, Carol Williams, Skasha, Jessica Cleaves, JaiBait, Gibraltar Transmissions, U.S. Athletic, Vicky Love, Pilot Jones, Force Desire, Yolandita Monge, LeBon Beat, The Real Roxanne, Cheryl "Pepsi" Riley, Carl Anderson.



BEARVILLE STUDIOS  
Bearsville, NY

[24+] **BEARVILLE STUDIOS**; PO Box 1353; Bearsville, NY 12409; (914) 679-8900; FAX: (914) 679-5371. Owner: Estate of Albert B. Grossman. Manager: Ian Kimmel, Mary Lou Arnold (asst.). Engineers: Thom Cadley, George Cowan, Chris Laidlaw; maint. engineers Ken McKim, Robert Frazza. Dimensions: Room 1: studio 60 x 40 x 40, control room 20 x 19. Room 2: studio 30 x 25, control room 23 x 18. Rehearsal studio 30 x 25. Mixing Consoles: Studio A, Neve 8088 40 x 16 x 40, Studio B, SSL 6000E 56 x 32 x 56 w/G Series computer; rehearsal studio, custom Bearsville 40 x 8. Audio Recorders: (3) Studer A80 MkIII 24-track, Sony PCM-2500 professional R-DAT, Studer AB20 2-track 1/2", Studer A810 2-track 1/4", Studer A80 VU 2-track 1/2", Studio A80 RC 2-track 1/4", Studer B67 2-track 1/4". Cassette Recorders/Duplicators: (4) Tascam 122MkII, (3) Tascam 122B, (6) Technics M85. Noise Reduc-

—CONTINUED ON NEXT PAGE



# Reasons To Subscribe To Mix



## **Craig Anderton/MI Update**

Guitarist, synthesist, electronic music expert Craig Anderton reports on music technology and its effect on the audio, video and film environments.

Craig is also editor of our sister publication, *Electronic Musician*.

## **Mel Lambert/Juxtapositions**

Industry veteran Mel Lambert examines current trends in audio/video production techniques and applications, with a view to inform, enlighten and *connect*.



## **Ken Pohlmann/Insider Audio**

Our monthly liaison between the old and the new, and an international authority on digital audio, Ken provides a technical and theoretical overview of the latest

audio developments for the studio.

## **Philip De Lancie/After-Mix**

With an eye toward new technology and market trends, Phil talks to the engineers, inventors and executives who shape the flow of tapes and discs from mastering room to the consumer.



## **George Petersen/Auditions**

*Mix* product editor George Petersen evaluates new equipment, software, books and instructional videos in a working production environment—his own digital recording studio.



## **Stephen St. Croix/Fast Lane**

A musician, producer, designer, engineer and resident jack-of-all-trades, Stephen writes each month on futuristic audio concepts and technologies as they apply to the present.



**A**s a *Mix* subscriber, you'll read the observations of these and other top audio professionals each month. And you'll receive the industry's most thorough coverage of new product announcements, studio sessions and profiles of leading producers, engineers and facilities. Turn to *Mix* for useful articles on equipment and applications—designed for you, the working professional. If you're not a *Mix* subscriber, use the application in this issue to become one today!

**MIX—TRACKING YOUR FUTURE**

**MIX** THE  
RECORDING  
INDUSTRY  
MAGAZINE

# N O R T H E A S T

# 24+ TRACK

## STUDIOS

### —CONTINUED FROM PREVIOUS PAGE

tion Equipment: Dolby A 24-channel, (2) Dolby 361, dbx 206 24-channel. Synchronization Systems: TimeLine Lynx modules. Echo, Reverb & Delay Systems: AMS RMX, (2) AMS DMX, Lexicon 224XL, Lexicon PCM70, Lexicon PCM42, Lexicon Prime Time II, Lexicon Super Prime Time, Publison Infernal Machine, Yamaha SPX90, (3) Yamaha REV7, Live Chamber, (2) EMT 140ST, EMT 240. Other Outboard Equipment: (2) Eventide H949, Eventide H910, (2) Klark-Teknik DN-34, DMP Cyclosonic Panner, (4) Pultec EQP, (4) Pultec MEQ, (8) Drawmer DS-201 gate, (6) Neve 32264 comp/lim, (4) UREI 1176-LN, (2) UREI 1178, (3) Teletronix LA-2A, (2) Valley People rack w/(9) Valley People Kepex II, (5) Valley People Gain Brain II, (2) Maxi Q and much more. Microphones: Neumann, Sanken, Sennheiser, AKG, Shure, RCA, Sony, E-V, Crown PZM, Beyer. Monitor Amplifiers: Perreaux, Crown, Yamaha, Hafler. Monitor Speakers: (2) UREI 813A, UREI 813B, Tannoy SRM12B, Tannoy NFM8, E-V Sentry 100, Yamaha NS-10M, Visonik, R.O.R. Cubes, Auratone. Musical Instruments: Bosendorfer grand piano, Yamaha grand piano, Yamaha DX7 synth, Yamaha CP70 electric piano, Roland Jupiter-8, Hammond B-3 w/Leslie, Musser vibes, Ludwig drums, Linn II, Fender amp, Roland amp, Marshall amp. Rates: By hour, day or week. Lock-outs and block booking, special rates. Specialization & Credits: Bearsville Studios provides world-class recording and rehearsal facilities in a relaxed country setting, just two hours north of New York City. Spacious lodging with 32-channel cable TV on 100 acres with pool. Convenient to excellent restaurants and shopping in Woodstock. Fully equipped rehearsal barn complete with custom console, EQs, amps and speakers. Real-time tape duplication in our new copy room. Individual cue mixers in Studio A and Studio B.



**BIOYA RECORDING STUDIOS**  
Paterson, NJ

[24+] **BIOYA RECORDING STUDIOS**; 32 Hoxey St.; Paterson, NJ 07501; (201) 742-7704. Owner: Len and Lou Argese. Manager: Len Argese. Engineers: Lou Argese, Len Argese, Ron St. Germain, Miguel Otero. Dimensions: Studio 24 x 26, control room 20 x 20, (3) iso booths, drum booth with closed-circuit TV. Mixing Consoles: Sound Workshop Series 34 74 x 24 automated. Audio Recorders: (2) Otari MTR-9011 24-track, Otari MTR-12 2-track 1/4", Otari MX-5050 MkIV 4/8-track, Mitsubishi X-80 Pro-Digi 2-track digital, Sony F-1 2-track digital processor. Cassette Recorders/Duplicators: (2) Tascam 122B. Noise Reduction Equipment: dbx 116 26 channels, (5) dbx 180 10 channels, (2) Dolby Type A 361 2 channels. Synchronization Systems: (2) TimeLine Lynx sync module, Roland SBX-80 SMPTE/MIDI sync box. Echo, Reverb & Delay Systems: Quantec QRS room simulator, Stocktronics 4000 echo plate, Yamaha REV7, Yamaha SPX90II, (2) ART 01A, Roland DEP-5, (2) Roland SDE-3000 DDL. Other Outboard Equipment: Drawmer stereo gate, (4) Valley People Dyna-Mite stereo multieffects, Fostex stereo limiter/compressor, Yamaha stereo compressor/limiter, BBE 802 stereo audio processor, Aphex Type B stereo Aural Exciter, Rocketron Hush IIC stereo noise eliminator, Roland Vocoder, (2) Yamaha 8-channel mic preamp. Microphones: Neumann, AKG, Sennheiser, Sony, E-V, Crown PZM, Shure. Monitor Amplifiers: Hafler, BGW, Carver, SCS. Monitor Speakers: Yamaha NS-10, Auratone, JBL, Impact Audio, Emilar, Renkus-Heinz, Toa. Musical Instruments: Roland S-550 sampler, Oberheim DPX-1 sampler, Casio FZ-1 sampler, Roland D-50 synth module, ESQ-M synth module, Yamaha DX7 synth, (2) Yamaha TX7 synth module, Oberheim OB-8 synth, Roland MKS-20 piano module, Yamaha RX5 drum machine, Dynacord digital drum module, Roland MKS-80 synth module, Roland MKS-50 synth

module, Korg M1-R synth module, Casio VZ-1 synth, Casio CZ-101 synth, Kawai 5'10" MIDI grand piano, full set of Tama drums, Roland DDF-30 digital drums. Other MIDI Equipment: Roland MC-500 MkII microcomputer/sequencer, Roland MKB-300 keyboard controller, Roland A-110 MIDI display/thru box, Roland Pa180 Octapad II. Video Equipment: Available upon request. Other: The "Bioya Bear." Rates: Available upon request.



**BLANK PRODUCTIONS**  
Stamford, CT

[24+] **BLANK PRODUCTIONS**; also **REMOTE RECORDING**; 1597 Hope St.; Stamford, CT 06907; (203) 968-2420; FAX: (203) 329-7193. Owner: Bob, Lola, Ken Blank. Manager: Bob Blank. Mixing Consoles: (3) Yamaha DMP7 digital automated console. Audio Recorders: Studer A80 24-track recorder, (2) Fostex E-2 2-track w/center-channel SMPTE, (2) Panasonic 3500R DAT. Cassette Recorders/Duplicators: (3) Denon MX350 mastering cassette recorder, (3) Onkyo TA-2130 mastering cassette recorder. Noise Reduction Equipment: (4) Dolby A361. Synchronization Systems: Adams-Smith Zeta-3 Echo, Reverb & Delay Systems: Lexicon 224X, (4) Yamaha DMP7, ART ProVerb, live chamber, Yamaha SPX-90II. Other Outboard Equipment: (4) Valley People GateX, UREI 527 31-band graphic EQ, Rane graphic EQ, dbx 165, dbx 166, Symetrix Vocal Processor, Orban 622B parametric EQ, Gain Brain II. Microphones: AKG 414EBU. Monitor Amplifiers: Carver 2.0, Hafler 450, Mitsubishi 431. Monitor Speakers: UREI 813B, Yamaha NS-10M, ROR, JBL 4311. Musical Instruments: Kawai upright, Kurzweil Midibroad, Roland D-550, Roland MKS-50, (2) Korg M-1, Emax, Akai S900, Akai S700, E-mu SP-12, Yamaha TX802, Yamaha TX816 rack, Alesis M-16, Roland JX-10, Roland Juno-106, Casio CZ-101, Yamaha PTX8 drums, Korg DDD-1 drums, (2) Roland MKS-100, over 4,500 sounds. Other MIDI Equipment: Macintosh SE, Jam Box/4+, Atari 1024, Steinberg SM24. Video Equipment: Sony BVU 1/4", Panasonic and Sony 1/2", Sony digital 8mm. Specialization & Credits: The former owner of NYC's Blank Tapes Studio, Bob Blank has 15 gold and platinum records to his credit. Blank Productions' secluded Connecticut facility continues our 15-year commitment to quality and success. Located in a 100-year-old restored farmhouse on two wooded acres, we offer a unique, high-quality work environment. Olympic swimming pool, 50" TV monitors and an experienced staff of engineers and producers round out the package. Specializing in both advertising and records, with 65 national TV spots and many major record releases in 1988. Per-project rates available. In conjunction we offer outside engineering and production with Bob Blank (three #1 records, commercials for Coca-Cola, Coors, Pizza Hut) and Carlos Franzetti (many motion picture scores, Kid Creole gold LP, over 150 national spots) for arranging and writing. Two 24-track/programming facilities. Call or FAX for demo cassette.

[24+] **BLUE JAY RECORDING STUDIO, INC.**; 669 Bedford Rd.; Carlisle, MA 01741; (508) 369-2200; (508) 369-0766. Owner: Robert & Janet Lawson. Manager: Bob Lawson. Engineers: Mark Tanzer, Mark Wessel, Tina Hansen. Dimensions: Studio 38 x 28, control room 18 x 19. Mixing Consoles: SSL 4056E56 56 x 32 w/Total Recall. Audio Recorders: (2) Studer A800 24-track, Studer A820 2-track 1/2" w/center time code, Studer A80 2-track 1/2", Studer B67 2-track 1/4", Sony JH-110B 2-track 1/4", dbx 700 digital, Sony PCM-2500 DAT. Cassette Recorders/Duplicators: (7) Tascam 122. Noise Reduction Equipment: Dolby A 4-channel, dbx 180 stereo. Synchronization Systems: TimeLine Lynx. Echo, Reverb & Delay Systems: Lexicon 224XL, Lexicon 224, Lexicon PCM60, AMS RMX 16, EMT 140 stereo time plate, AMS DMX 15-80, Lexicon Prime Time II, (2) Lexicon PCM42, Lexicon Prime Time, Urso Major Space Station, many others. Other Outboard Equipment: (4) Pultec EQP, (3) UREI LA-2A, (2) Drawmer DS-201 stereo, (4) Ashly SC34 stereo, (2) dbx 165A, (2) dbx 160X, (2) UREI 1176, UREI LA-4A stereo, (2) dbx 906 flanger, Loft delay and flanger, many others. Microphones: Telefunken 251 tube, AKG C-12 tube, Neumann U47 tube, (2) Bruel & Kjaer 4006, Bruel & Kjaer 4007, (2) Neumann U87, (2) Neumann KM86, Neumann KM84, (2) Neumann U64 AKG C-451E, (3) AKG 414, (2)



**BLUE JAY RECORDING STUDIO, INC.**  
Carlisle, MA

Schoeps. Monitor Amplifiers: (3) Bryston 4, (3) BGW 250, McIntosh 2100. Monitor Speakers: UREI 813B (customized), Klipsch Cornwall studio monitors, E-V Sentry 100, Acoustic Research 18, (3) Yamaha NS-10M, Auratone. Musical Instruments: Falcone 7' concert grand piano, Kurzweil 250 (advanced sampling mode), Fender Stratocaster guitar, Gibson Hummingbird guitar, Alesis HR-16 drum machine, percussion and snare. Other MIDI Equipment: Apple Mac Plus computer w/Mark of the Unicorn Performer Series software. Specialization & Credits: Located 30 minutes from downtown Boston, Blue Jay offers state-of-the-art equipment and superior acoustics in comfortable, private surroundings. Constructed in 1979, the uniquely designed, earth-sheltered facility reflects a commitment to technical excellence as well as attention to the needs of creative artists. Credits in 1986/87 include: 'Til Tuesday, Roy Orbison, James Taylor, Britny Fox, The System, Amy Grant.

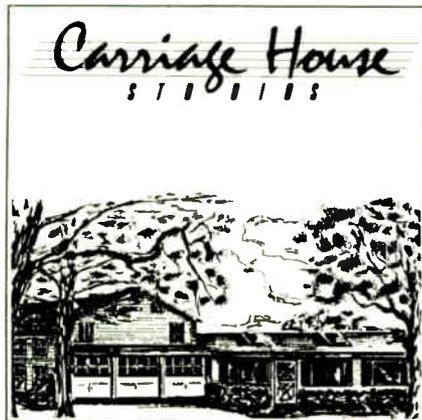
[24+] **BRIGHTON RECORDING**; also **REMOTE RECORDING**; 1 Mill St.; Plains, PA 18705; (717) 829-7060, (717) 341-7580. Owner: William Roditski. Dimensions: Studio A: 25 x 33, Studio B: 11 x 11, Studio C: 8 x 10, control room: 18 x 26. Mixing Consoles: Soundcraft 600 24 x 8 x 24 x 2 modified w/patch bay. Audio Recorders: Otari MX-80 24-track 2" w/autolocator, Ampex ATR-800 2-track, Akai GX630-B 2-track, Toshiba DX-900 PCM (VHS), Sony DAT. Cassette Recorders/Duplicators: Nakamichi MR-1, (2) Nakamichi MR-2. Noise Reduction Equipment: Dolby HX-Pro, dbx. Echo, Reverb & Delay Systems: Yamaha REV5, Lexicon PCM70, (2) Yamaha SPX90, DeltaLab 1024, Eventide H910 Harmonizer w/key-board. Other Outboard Equipment: Orban 622B, CDT CGM-2 w/Dynex, (2) Yamaha GQ1031B, Yamaha Q2031, DOD R830, Yamaha GC2020, Aphex 612 gate, (2) UREI 7110 compressor. Microphones: Neumann U87, AKG 414, AKG C-460, AKG D-112, AKG D-12E, (2) Sennheiser 441, (2) Sennheiser 421, (2) Shure SM81 w/Omni and Cardioid cartridges, (2) Shure 545, Shure SM58, (2) E-V PL76B, E-V RE20, Crown PZM. Monitor Amplifiers: (2) Hafler XL-280, Rane HC-6 headphone amp, (2) A/T Little Red cue box. Monitor Speakers: (2) Tannoy SGM-12, (2) JBL 4412, (4) AKG K141 headphones, (2) Koss headphones. Musical Instruments: Yamaha DX7IID, Oberheim OB-8 (MIDI), Mirage multisampler Yamaha FB01, Yamaha RX5 rhythm programmer, acoustic grand piano, Deagan vibraphone, (2) Yamaha guitars (1 electric/1 acoustic), Crumar orchestration, Roland TR-505 rhythm composer. Other MIDI Equipment: Apple IIe (5.25" and 3.5" drives), Passport interface and software, Yamaha MJC8, MEP4, Akai ME10D, ME20A. Other: Toshiba XR-270 CD player. Rates: Please call for our very low rates.

[24+] **CARRIAGE HOUSE STUDIOS**; 119 W. Hill Rd.; Stamford, CT 06902; (203) 358-0065. Owner: Johnny Montagnese. Manager: Patricia Spicer. Engineers: Phil Magnotti, Johnny Montagnese, Matt Lane, Alec Head, Earl Cohen, Max Norman. Dimensions: Main room 30 x 30, control room 25 x 25, live room 25 x 20, iso booth 8 x 8, iso booth 6 x 6. Mixing Consoles: SSL 4036-56E Total Recall/automation. Audio Recorders: Otari MTR-9011 24-track, Otari MTR-10 2-track 1/2", Otari MTR-10 2-track 1/4". Echo, Reverb & Delay Systems: Lexicon 480L-A, Lexicon 224XL, EMT stereo plate, live chamber, Orban, (3) Yamaha REV7, Urso Major Space Station, Yamaha SPX90 Roland SRV-2000, Roland SDE-3000. Other Outboard Equipment: Eventide 949 Harmonizer, Eventide 910 flanger, UREI LA-4, UREI 1176, dbx 160, Drawmer gates/comp., Valley People Dyna-Mite, PCM42, DeltaLab digital delay, acoustic computer, Roland Dimension 'D', Aural Exciter, de-esser, Trident parametrics, UREI dual parametric EQs, Lexicon Super Prime Time, Akai 9000, art more Microphones: Neumann U89, Neumann U87, Neumann U47, AKG 414, AKG 451, AKG 452, Shure SM57, Shure Green Bullet, Crown PZM, Sennheiser 421, Sennheiser 441, RCA 44, RCA 77. Monitor Amplifiers: Yamaha, UREI, BGW, Acoustate, Phase Linear, Hafler. Monitor Speakers: JBL 4435 biamped w/crossover, Yamaha NS-10, Tannoy NF, Toa 280ME. Musical Instru-

—CONTINUED ON NEXT PAGE

# N O R T H E A S T 24+ TRACK STUDIOS

—CONTINUED FROM PREVIOUS PAGE



**CARRIAGE HOUSE STUDIOS**  
Stamford, CT

ments: Tadashi grand piano, Yamaha electric grand, Fender Rhodes, Yamaha DX7, Oberheim OBX, Korg Poly-6, DMX, Linn, Yamaha drum machines, Ludwig drums, timpani, vibes, full percussion. **Other MIDI Equipment:** Kurzweil synthesizer, Macintosh computer, Compaq computer. **Rates:** Project-oriented pricing. **Specialization & Credits:** Living accommodations, open spaces, 45 minutes from midtown New York City, good cooking, trees to climb, fresh air, the best environment. Located on a private New England estate, this is the perfect artist's studio.

[24+] **CEDAR SOUND;** also **REMOTE RECORDING;** 90 West St.; New York, NY 10006; (212) 227-3896. Owner: Mark Freedman. Manager: Psquani Fretes

[24+] **CELEBRATION SOUNDS;** 26 Summer St.; Pawtucket, RI 02860; (401) 728-0780. Owner: David Correia, Dan Moretti. Manager: Catherine Correia

[24+] **CENTRAL STUDIO;** 9111 Georgia Ave.; Silver Spring, MD 20910; (301) 565-3734. Owner: Kevin Mora, Alan Leary. Manager: Monsy Morales

[24+] **CHALET SOUND STUDIO;** 2323 Hwy. 34; Manasquan, NJ 08736; (201) 223-0836. Owner: Richard and Michael Berardi. Manager: Bob Miller

[24+] **CHESTNUT SOUND, INC.;** also **REMOTE RECORDING;** 1824 Chestnut St.; Philadelphia, PA 19103; (215) 568-5797. Owner: Joe Alfonsi. Manager: Joe Alfonsi. Engineers: Leslie M. Chew, Jeremy Birnbaum, Mike Harmon, Chris Gately. Dimensions: Room 1: studio 36 x 17, control room 17 x 14. Room 2: studio 6 x 6, control room 8 x 18. **Mixing Consoles:** Sound Workshop Series 30 2B x 16, Hill 16 x 4 multitrack. **Audio Recorders:** Otari MX-80 24-track w/autolocator, Ampex ATR-800 2-track, Ampex ATR-700 2-track, Otari 5050 MkII 2-track, Tascam 32-2B 2-track, Panasonic SV-3500 R-DAT. **Cassette Recorders/Duplicators:** (4) Tascam 122, Otari DP-4050C2. **Noise Reduction Equipment:** (2) dbx 180. **Synchronization Systems:** Adams-Smith Zeta-3. **Echo, Reverb & Delay Systems:** AKG 68K digital processor, Lexicon PCM60 w/2.0 update, Yamaha REV7, Ecoplate III, Ibanez SDR-1000. **Other Outboard Equipment:** Eventide H910 Harmonizer, Aphex Aural Exciter, dbx 906 flanger, (2) dbx 905 EQ, dbx 902 de-esser, (2) UREI LA-4 comp, (2) UREI 545 EQ, (4) GateX gate, TC Electronic 2240 parametric EQ, UREI 1176 comp, Technics SL-1200 MkII, Sony CDP-102 CD player. **Microphones:** AKG 414ULS, AKG 414EB, Neumann TLM170, (2) AKG 460, (3) Sennheiser 421, (2) Crown P2M, (2) RCA BK-5, (2) Shure SM81, (3) Shure SM57, AKG D-202, (2) Beyer M500. **Monitor Amplifiers:** Haller 250, Yamaha P2200, Yamaha 2100, Carver PM-175, Crown DC-150, Yamaha P2050. **Monitor Speakers:** Altec Big Reds w/Master Lab crossovers, JBL 4311, (2) Yamaha NS-10, Auratone 5C, Realistic Minimus 7. **Musical Instruments:** Yamaha G3 grand piano, Fender Twin Reverb, Fender Stage lead, Gallien-Krueger bass amp, Sonor drum machine, Korg DDD-1 digital drum machine, Casio CZ-101 synth, Emax digital sampler. **Other MIDI Equipment:** (2) Mac Plus w/Southwest MIDI interface, Performer digital seq. software, Digidesign editing software for Emax, complete disk library for Emax, control room to studio MIDI tie-lines, Roland Octapad II, Roland D-110MOD w/Opcode edit and library. **Video Equipment:** NEC DX1000-U VHS, Commodore moni-

tors, Sony monitors, additional rentals upon request. **Other:** Lots more outboard gear and microphones upon client's request. Like the ambience in the lounge? No problem! We've got tie-lines everywhere. Free coffee and donuts. Atari 7800 pro video game system. **Rates:** Rates available upon request.

[24+] **CHUNG KING HOUSE OF METAL;** 247 Centre St.; New York, NY 10013; (212) 219-8485; FAX: (212) 334-9145. Owner: John King. Engineers: John King, Steve Ett, Greg Gordon, various freelancers. Dimensions: Room 1: studio 18 x 28, control room 16 x 20. Room 2: studio 25 x 25, control room 20 x 16. Room 3: control room 23 x 18. **Mixing Consoles:** Neve custom 36 x 56 x 24, Neve V Series 60 x 120 x 48 w/Necam 96 automation (flying faders on order), Neve custom 24 x 34 x 24. **Audio Recorders:** (2) Studer A80 MkIV 24-track, (2) Tascam ATR-80 24-track, MCI JH-24 24-track, Studer A80 MkIII 2-track ½" and ¼", Studer A80RC 2-track ½" and ¼", Mitsubishi X-86 2-track digital, Telefunken ½", Studer A67 ¼". **Cassette Recorders/Duplicators:** (2) Nakamichi MR-1, Nakamichi BX-100, (3) Onkyo Integron, DAT available. **Synchronization Systems:** Adams-Smith 2600 synchronizer/generator, Tascam ES-50 and ES-51. **Echo, Reverb & Delay Systems:** (2) Lexicon 224, (2) Yamaha REV7, (6) Yamaha SPX90, (4) Roland DEP-5, (2) Lexicon PCM70, (2) Lexicon PCM41, (2) Bel BDE Series w/disk drive, AKG BX-20, Roland SRV-2000, (2) Ibanez SDR-1000, Eventide H3000, TC Electronic 2290, EMT plate, Klark-Teknik DN780, (2) Lexicon LXP-1 w/MRC MIDI controller. **Other Outboard Equipment:** (6) Pultec EQ, dbx 160, dbx 165A, UREI LA-2A, Drawmer comp/lim, Neve comp/lim, Drawmer gates, Valley People Dyna-Mite gates, Valley People Kexep, Neve gates, Eventide H949. **Microphones:** Many Neumann tube mics, Telefunken tube mics, all types of condenser mics, all types of dynamic mics. **Monitor Amplifiers:** (2) Perreaux 8000C, Perreaux 6000B, (2) Crown DC-300. **Monitor Speakers:** (2) Tannoy FSM-U, (2) Tannoy Little Gold, (2) UREI 811, (2) Big Red w/UREI X-over, (2) Fostex RM-780, (4) Yamaha NS-10M, (2) Fourier 8, (2) Auratone, (2) UREI 813A, Tannoy PBM 8 + 6.5, E-V Sentry 100. **Musical Instruments:** (2) Tama custom drum kit, (2) Marshall JCM800 amp, (7) assorted Fender amps, (2) Roland cube amp, Yamaha DX7, Mirage, Mellotron, Roland Juno-60, Roland Juno-106, Oberheim OB-Xa, Moog Minimoog, Moog Memorymoog, (2) DX100, (2) Akai S900, Oberheim DMX, Oberheim DX, Roland TR-505, Roland TR-606, Roland TR-707, Roland TR-727, Roland TR-808, Octapad, Linn 9000, E-mu SP-1200 turbo, Akai MPC-60, Alesis HR-16 and MMT8, Roland Super-JX. **Other MIDI Equipment:** SBX-80, Dr. Click, Mini Doc, MSQ700, IBM PC w/Mu-art. **Video Equipment:** ¾" recording playback deck, ½" recording playback deck, 20" and 25" video monitors. **Other:** (24) Neve outboard EQ (3-band/4-band), (2) UREI UA175 tube comp/lim, (2) Technics SL-1200 turntable, GLI audio mixer, (2) Sony CD player, MIDI production room available. **Equipment rental company, expert technical repairs.** **Rates:** Extraordinary, must call to believe.

[24+] **CIANI/MUSICA STUDIOS;** 30 E. 23rd St.; New York, NY 10010; (212) 777-7755. Owner: Suzanne Ciangi. Manager: James La Croix. **Mixing Consoles:** Anek Angela 38 x 4 x 2. **Audio Recorders:** Otari MTR-90 MkII 24-track, Otari MX-5050 4-track, Otari MX-5050 2-track, Otari MTR-12 2-track. **Cassette Recorders/Duplicators:** Tascam 122, Denon DR-M3. **Synchronization Systems:** (2) TimeLine Lynx, Garfield Masterbeat, Roland SBX-80. **Echo, Reverb & Delay Systems:** Lexicon 224X, Yamaha REV1, Yamaha REV7, (2) Yamaha SPX90, Eventide Harmonizer, Eventide 2016, (2) Yamaha D1500. **Other Outboard Equipment:** Drawmer dual gate, UREI 1176 compressor (4) dbx 160X. **Microphones:** Neumann U89. **Monitor Amplifiers:** (2) Bryston 4B. **Monitor Speakers:** (2) UREI 813B, (2) Yamaha NS-10, (2) Auratone Sound Cube. **Musical Instruments:** Roland D-550, Yamaha TX816, E-mu Emax HD, Roland JX, Roland Planet 5, Akai S900, Roland digital piano module, Roland Super Jupiter, (2) Yamaha DX7, Roland S-50, Linn 9000, AudioFrame Wave Frame, Synclavier. **Other MIDI Equipment:** Custom MIDI patcher, Mellotron AT compatible, Apple Macintosh. **Video Equipment:** JVC CR6650 ¾" video recorder, JVC BR6400U ½" video recorder.

[24+] **CLINTON RECORDING STUDIOS, INC.;** 653 Tenth Ave.; New York, NY 10036; (212) 246-2444. Owner: Bruce Merley, Ed Rak. Manager: Meg Darnell. Engineers: Ed Rak, Gene Curtis. Dimensions: Room 1: studio 2,000 x 22 (ceiling), control room 450 sq. ft. Room 2: studio 1,200 x 15 (ceiling), control room 400 sq. ft. Room 3: studio 75 sq. ft., control room 275 sq. ft. Room 4: control room/synth/MIDI studio: 275 sq. ft. **Mixing Consoles:** (3) Neve 8078 40 x 32 w/Necam II. **Audio Recorders:** (2) Mitsubishi X-850 32-track digital, Mitsubishi X-80 2-track digital, (3) Studer A800 24-track, (2) Studer A80 2-track, (3) Studer A80 4-track, (7) Studer A810 2-track. **Cassette Recorders/Duplicators:** (2) Sony 701-ES digital processor, (3) Sony DTC-1000 R-DAT, (5) Nakamichi MR-2. **Noise Reduction Equipment:** (3) Dolby SP24, (4) Dolby 361. **Synchronization Systems:** BTX Cypher reader/generator, BTX Softouch (4-machine lockup capability), BTX Shadow (2-machine lockup capability), Otari time code reader, TimeLine Lynx synchronizers, Echo, Reverb & Delay Systems: (6) EMT 140 plates, (3) Lexicon 224XL w/LARC, AMS DM5 1580, (2) AMS RMX, (6) Audio Digital TC2, Lexicon Super Prime Time, (4) Yamaha REV7, (4) Yamaha SPX90. **Other Outboard Equipment:** Neve limiters, UREI LA-3A, UREI 1176, dbx 160, dbx 165A. **Scamp racks, Audio Digital TC2, Marshall AR300, Marshall time modulator, Eventide 910, Eventide 949 Harmonizer, Eventide 969 Harmonizer, Orban 622 EQs, Pultec EQP-**



**CLINTON RECORDING STUDIOS, INC.**  
New York, NY

1A, Drawmer noise gates, UREI 964 metronomes, Valley People Dyna-Mite noise gates, Aphex Aural Exciter, Orban de-esser. **Microphones:** AKG, Crown, E-V, Neumann, Sony, Shure, Sennheiser, Schoeps. **Monitor Amplifiers:** Bryston 6B, Bryston 4B, McIntosh 2500, McIntosh 2300. **Monitor Speakers:** UREI 813B, Westlake BBSM10, Yamaha NS-10M, Visonik 9000, Visonik 803, E-V Sentry 100, Auratone 5C. **Musical Instruments:** Steinway D 9' grand, Yamaha C7 7' grand, Fender Rhodes Dyno-My-Piano, Yamaha Tour Series drums, acoustic bass amps, Roland JC-120 guitar amps, Marshall guitar amp, Yamaha DX7. **Video Equipment:** (4) Sony Pro Feel 26" monitors, (3) JVC 6650 U-matic VCR w/remote, VHS and Beta VCRs. **Other:** Magna-Tech 10,000 16/35mm film recorder, w/1/3/4/6-track, Leed head stacks, fully equipped MIDI/synthesizer studio. **Rates:** Inquire.

[24+] **COURTLEN RECORDING;** 149 MaQuan St.; Hanson, MA 02431; (617) 294-8316. Owner: Frederick Danner. Manager: Patricia Danner. Engineers: Bob St. John, Bob Dalton, Fred Danner, Dave James. Dimensions: Studio 26 x 24, control room 18 x 15. **Mixing Consoles:** Klark-Teknik AMR-24 36 x 24, ARMS automation and disk mix. **Audio Recorders:** Sony/MCI JH-24 24-track w/ALLI, Otari MTR-10 2-track, Otari MX-5050B 2-track. **Cassette Recorders/Duplicators:** Sony TC-W7R. **Noise Reduction Equipment:** Dolby SR 24-track. **Synchronization Systems:** Adams-Smith Zeta-3. **Echo, Reverb & Delay Systems:** Lexicon 200, Lexicon PCM41, (2) TC Electronic 2290, (3) Yamaha SPX90. **Other Outboard Equipment:** (2) Teltronix LA-2A, Brooke-Siren DPR-402, (2) dbx 160, Symetrix 522, (2) GateX, (2) Ashly SG33, dbx 165, Aphex B, Loft 440, Klark-Teknik DN-360B. **Microphones:** (2) Neumann U87, Neumann TLM170, (2) B&K 4000, (2) AKG 414, (2) AKG 451, (2) AKG 452EB, E-V RE20, (4) Sennheiser 421, AKG D-12E, (20) Shure SM57 and SM58. **Monitor Amplifiers:** (2) Ashly 500 FET, (2) Ashly 200 FET, Crown, McIntosh. **Monitor Speakers:** (2) Tannoy SGM-1000, (2) Yamaha NS-10M, (2) Tannoy SRM-12B. **Musical Instruments:** Anything upon request. **Rates:** Please call.

[24+] **COVE CITY SOUND STUDIOS, INC.;** 7 Pratt Blvd.; Glen Cove, NY 11542; (516) 759-9110. Owner: Clay Hutchinson, Richie Cannata. Manager: Clay Hutchinson. Engineers: Clay Hutchinson, Tom Yezi, Bob Cadway, Steve Stabile. Dimensions: Room 1: studio 40 x 38 x 22(H), control room 38 x 18 x 12(H). Room 2: studio 38 x 36 x 20(H), control room 36 x 18 x 12(H). **Mixing Consoles:** Neve 8068 32 x 16, Neve 8058 28 x 16, Neve 8014 16 x 4, Soundcraft 400B 24 x 4, Ramsa 8112 12 x 4. **Audio Recorders:** Studer A820 24-track, (2) Studer A80 24-track, (2) Studer B67 2-track, Studer A820 2-track. **Cassette Recorders/Duplicators:** Studer A710, (6) Nakamichi MR-1. **Synchronization Systems:** Lynx lockup. **Echo, Reverb & Delay Systems:** AMS reverb, (2) Lexicon PCM70, Lexicon PCM60, (3) Yamaha REV7, (2) Lexicon PCM-42, EMT 140, (4) Eventide Harmonizer. **Other Outboard Equipment:** (6) Pultec EQP-1A, (6) dbx 160VU, (4) dbx 160X, (2) SPX90, (7) UREI 1176LN, (8) Kexep II, Orban de-esser, Orban stereo EQ, (5) API 554 EQ, (2) UREI LA-3A. **Microphones:** (4) Neumann U87, (2) Neumann U47 tube, (8) AKG 414EB, (8) Sennheiser 452, (6) Sennheiser 421, (2) E-V RE20, (3) 67, (4) AKG D-12. **Monitor Amplifiers:** (2) McIntosh 2250, UREI 6500, McIntosh 2155. **Monitor Speakers:** (4) UREI 813B, (6) Yamaha NS-10M, (2) Yamaha NS-10M (studio), (2) Auratone, (2) Altec 604E. **Musical Instruments:** Tama drum set, (2) Yamaha DX7, Moog Memorymoog, Moog Minimoog, Yamaha TX816, Yamaha TX812, Yamaha DX21, Roland D-50, Roland S-50, Roland Juno-60, Roland JX-10, LinnDrum (MIDI), E-mu SP-12 drum machine, Akai MPC-60, Korg DW-8000, Sequential Circuits Pro-1, Oberheim Xpander, Akai S900 sampler. **Other MIDI Equipment:** Macintosh SE/HD, Atari 1040ST, Roland SBX-80. **Other:** Ampeg B-15N, Marshall 100W, (2) Mesa/Boogie, Roland Jazz chorus. **Rates:** Call for info. **Specialization & Credits:** Specialization: two large rooms, very high ceilings, excellent tracking with 48-track lockup. **Credits:** Taylor Dayne: album *Tell It to My Heart*—platinum; Whitney Hous-

—CONTINUED ON NEXT PAGE

# NOW NEW YORK IS MORE POWERFUL THAN EVER.

Power Play Studios just upgraded to analog with two Sony state-of-the-art APR-24 multitrack recorders. Now New York is sounding better than ever, too.

Power Play Studios  
38-12 30th Street  
Long Island City, NY 11101  
Tony Arfi (718) 729-1780

Sony Professional Audio  
15 Essex Road  
Paramus, NJ 07652  
Andy Munitz (201) 368-5185

**SONY®**

**Professional Audio**

# N O R T H E A S T

# 24+ TRACK

## STUDIOS

### —CONTINUED FROM PREVIOUS PAGE

ton: single "Love Will Save the Day"—gold; 1988 Olympic album *One Moment in Time*—gold; *Hound Dog Album* (CBS-Sony) Japan—gold

[24+] **CREATIVE AUDIO**; also *REMOTE RECORDING*; 19 W. 36th St., New York, NY 10018-7909; (212) 714-0976. Owner: Shelton Leigh Palmer. Manager: Pat Olmstead.

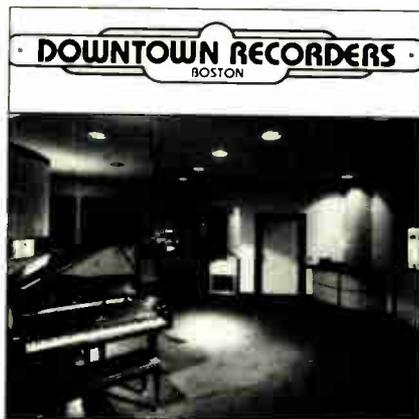
[24+] **CREATIVE MUSIC FACTORY (FORMERLY SANMAN PRODUCTIONS, INC.)**; 70 Outwater Ln., PO Box 487; Garfield, NJ 07026-0487; (201) 546-6503; FAX: (201) 546-0495. Manager: Sandy Winnerman. Engineers: Sandy Winnerman, Ed Dougherty, Dave Garlinkie. Dimensions: Studio 18 x 11, control room 19 x 14. Mixing Consoles: TAC Scorpion 32 x 8 (custom modifications by Singularity) w/24 channels MegaMix automation. Audio Recorders: Otari MX-70 16-track, Otari MKIII 2-track, Foxtex E-22 2-track, Otari MX-80 32-track w/interchangeable 2" 24-track headstack, Otari MX-55 TM 2-track 1/4" w/SMPTe, Panasonic SV250 portable R-DAT. Cassette Recorders/Duplicators: Nakamichi MR-1, Nakamichi MR-2. Noise Reduction Equipment: (8) dbx 180A Type I, Symetrix 511A Synchronization Systems. Southworth Jam Box 4+, Roland SBX-80, Zeta-3. Echo, Reverb & Delay Systems: Lexicon PCM70, Lexicon PCM95 Prime Time, Roland DEP-5, Alexis Xtc, MXR 1500, Lexicon LXP-1 w/MRC MIDI remote controller, DigiTech DSP-128, Eventide H3000 Ultra-Harmonizer, ART MultiVerb. Other Outboard Equipment: Korg DVP-1 digital voice processor, dbx 166 stereo compressor/gate, (2) Valley People Max EQ 4-band parametric EQ, (4) Valley People Kepex II keyable expander/gate, (2) Valley People Gain Brain II keyable compressor, dbx 165A keyable compressor/limiter, Valley People Dyna-Mite stereo limiter/gate, (2) White 4650 1/3-octave 28-band active EQ, DOD SP11 aural enhancer, BBE 802, Orban 422A gated compressor/limiter/de-esser, Orban 642B parametric EQ. Microphones: AKG tube, (2) AKG C-414EB, AKG C-460B, (3) Sennheiser MD-421, Sennheiser MD-441, Sennheiser MD-409U3, E-V RE20, (2) Ramsa WM8150, Crown PZM, (2) Shure SM57, Neumann U87, (2) Countryman direct box. Monitor Amplifiers: Crown PS-400, Crown Micro-Tech 1000, Crown D-150A, Peavey M2600. Monitor Speakers: (2) JBL 4425, (2) E-V Sentry 505, (2) Yamaha NS-10M, (2) Toa 22ME. Musical Instruments: Gibson Les Paul custom guitar, Pedulla fretless bass, Guild Pilot 5-string bass, Kurzweil 250 digital sampling keyboard, Alexis HR-16 drum machine, Yamaha TX81Z synth module FM. Other MIDI Equipment: Apple Mac Plus, Southworth MIDI paint sequencer. Video Equipment: JVC CR850U 1/4" videodeck, Sigma BSG 100 video generator. Other: Groove Tube preamp for bass, Marshall Studio 15 guitar amp, Fender Twin Reverb guitar amp, Scholz Rockman X100 stereo guitar processor, Scholz Bass Rockman, Rockman. Rates: \$30/hr. Block rates available. Specialization & Credits: Along with high-quality audio recording, we specialize in advertising and jingle production. Our professional writing staff possesses the skill and experience needed to set your commercial apart from the ordinary. We also provide audio sweetening for film and video.

[24+] **CRYSTAL SOUND RECORDING, INC.**; also *REMOTE RECORDING*; 220 W. 19th St., New York, NY 10011; (212) 255-6745. Owner: C.S.R., Inc. Manager: Abigail Reid.

[24+] **D&D RECORDING**; 320 W. 37th St., New York, NY 10018; (212) 736-7774. Owner: David Lotwin, Douglas Grama. Manager: Barry Grama.

[24+] **DAK AUDIO**; also *REMOTE RECORDING*; 315 Rickert Rd., Sellersville, PA 18960; (215) 723-1167. Owner: Dan A. Kendra. Manager: Craig Shaffer, Doug Florio. Specialization & Credits: DAK Audio offers superb audio production in a tranquil, rural setting. Nestled in the hills between Philadelphia and Allentown, Pennsylvania, DAK is accessible to both markets as well as New York and New Jersey. Specializing in artist, jingle and commercial production, we are equipped to serve a wide range of clients. Our jingle division, Northeast Music Service, clients include AT&T, Budget Rent-A-Car, Sorbus (division of Bell Atlantic), Union National Bank and ADP. DAK offers a state-of-the-art computer-based MIDI system with an extensive sound library, as well as traditional acoustic and electric instruments. Our comfortable and relaxed atmosphere, reasonable rates and professional approach provide our clients the best opportunity for creative production. DAK's creative staff offers a cost-effective approach to all your production, promotion and marketing needs. Rates for 2/8/24-track available upon request.

[24+] **DOWNTOWN RECORDERS**; 537 Tremont St., Boston, MA 02116; (617) 426-3455. Owner: Mitch Benoff. Manager: Anne Richmond. Engineers: Joe Cuneo, Jeff Whitehead. Dimensions: Studio 23 x 28 plus four iso booths. Mixing Con-



**DOWNTOWN RECORDERS**  
Boston, MA

soles: MCI 636 modified 28 x 24 fully automated. Mega Recorders: MCI JH-24 24-track, MCI JH-110C 2-track 1/2", Otari M-5050B 2-track 1/4", Sony PCM-701ES for digital mastering. Cassette Recorders/Duplicators: Akai 770, Akai 660, Technics M280. Echo, Reverb & Delay Systems: Lexicon 224X digital reverb w/LARC, Lexicon PCM70, Lexicon Prime Time, Lexicon Super Prime Time, Lexicon PCM42, Korg DRV-3000, Yamaha SPX90. Alexis MIDIVerb II, TC Electronic 2290 16-bit sampler/processor, DeltaLab DL-4. Other Outboard Equipment: BBE 802 exciter, Aphex B Aural Exciter. Eventide H910 Harmonizer, (2) UREI LA-4 compressor/limiter, (3) UREI 1176 compressor/limiter, dbx 165A compressor/limiter, (2) UREI 175 tube compressor/limiter, Altec 436B tube compressor/limiter, (2) Ashly SC-50 compressor/limiter, (2) Valley People Dyna-Mite stereo gate, (3) Ashly SC33 stereo gate, (2) Ashly SC66 full stereo parametric EQ, Orban 674A 8-band stereo parametric EQ. Microphones: (2) Neumann U87, (2) Neumann KM88, (2) Neumann KM84, Neumann SM2 stereo tube, (2) AKG 414EB, (2) AKG 451E, AKG D-12E, (2) E-V RE20, E-V RE15, E-V 664, (2) Crown PZM, (6) Sennheiser MD-421, (2) Sennheiser MD-441, RCA 77-DX, (2) Beyer M500, Beyer M260, (2) Shure SM81, (6) Shure SM57. Monitor Amplifiers: (3) Ashly FET 500, Ashly FET 200, Crown 300A. Monitor Speakers: Custom UREI 813A biamped 800 watts per side, Yamaha NS-10M, Tannoy PBM 6.5, Auratone, JBL 431 studio monitors. Musical Instruments: Emulator II w/full sample library, Fairlight CMI IIX, Yamaha DX7, E-mu SP-12 turbo, LinnDrum, Steinway 1920 grand piano, Hammond B-3 organ w/Leslie speaker. Rates: Call for rates. Specialization & Credits: Clients: Recent albums include *The Pixies*, Roger Miller and Marimolin w/Lyle Mays. National credits include Aerosmith, Peter Wolf, Nils Lofgren, Bon Jovi, Bonnie Bramlett. Direction: We've always believed that a great performance makes a great recording, so we make sure that the entire recording process is relaxed and enjoyable, while keeping everything at the highest professional standards. Our room was designed for a comfortable feel and a great live sound. Our staff is experienced, knowledgeable and they know music and the music business so they can give you all the assistance you desire. All of our engineers are also musicians so they know what it's like to be on the other side of the recording window. We're here to make your recording experience creative and enjoyable and, above all, to record great tracks. That's what we're best known for.

[24+] **DREAMLAND RECORDING**; PO Box 383; Bearsville, NY 12409; (914) 338-7151. Owner: Joel Bluestein. Manager: Joel Bluestein. Engineers: David Cook (chief eng.), Harvey Sorgen, Martin Kunitz, Deanna Hewitt, Jay Bender (chief tech.). Dimensions: Room 1: studio 40 x 50 x 35, control room 25 x 18. Room 2: studio 25 x 20 x 12, control room 20 x 15. Room 3: control room 15 x 15. Mixing Consoles: API 3232 36 x 16 x 32 w/554 EQ, MCI 428 20 x 20 highly modified. Audio Recorders: Studer A820 24-track 2", Studer A80 VU MkIV 24-track, Tascam 388-track, Ampex ATR-102 2-track 1/2" and 1/4" formats, Otari MX-5050 2-track, Sony PCM-F1 digital 2-track. Cassette Recorders/Duplicators: (5) Tascam 122 MkII, Tascam 122B, Telex 6120 high-speed tape duplication system. Noise Reduction Equipment: dbx 208. Synchronization Systems: Shacow 4700 w/Cypher SMPTe reader/code generator. Echo, Reverb & Delay Systems: (2) live room (40 x 50 x 33, 25 x 18 x 12), Lexicon 224, Lexicon PCM70, Lexicon PCM42, (2) Yamaha REV7, (2) Roland DEP-5. Studio Technology Echoplex II, (2) Korg SDD-2000, DeltaLab DL-2A and Effectron II. Other Outboard Equipment: (4) Drawmer DS-201 stereo noise gate, Drawmer 1960 stereo tube comp/limiter/preamp, (2) Valley People Dyna-Mite stereo noise gate, UREI 1176 comp/limiter, UREI 1178 comp/limiter, UREI LA-2A, (4) UREI LA-3A, (2) UREI LA-4 comp/limiter, (4) dbx 160X comp/limiter, (3) dbx 904 noise gate, (3) dbx 903 comp/limiter, (2) dbx 166 gated comp/limiter, LydKraft PE-1A tube EQ, Pultec EOP-1A tube EQ, (2) Pultec EQH-3 tube EQ, Pultec MEQ-5 tube EQ, Eventide 3002, Eventide 949 Harmonizer, DeltaLab DL-5 Harmonizer, BBE 800 Exciter, Aphex Type C Aural Exciter, Eventide phaser, Eventide flanger, White 4" 00 stereo 1D-

band graphic EQ, (2) dbx 905 3-band parametric EQ, UREI 546 stereo 4-band parametric EQ. Microphones: Tubes: (2) Neumann M49, (2) Neumann U47, Neumann U67, Neumann KM56, (2) Schoeps CM61, AKG C-60, Altec 21D. Condensers: (2) Neumann U87, Neumann U89, (2) KM84, (2) AKG C-451, (3) AKG 414, (2) Countryman EM-101, E-V 725, (2) Calrec 1050, Sanken CMS-7 stereo, (2) Sanken CU-41. Ribbons: (2) RCA MI-10001A, (2) RCA MI-11010A, (2) Beyer M500C, RCA 77-DX. Dynamics: (7) Sennheiser 421, Sennheiser 441, AKG D-12E, (2) Shure SM58, (4) Shure SM57, E-V RE20, E-V 666R. PZMs: Crown PZM, (4) Realistic PZM modified. Monitor Amplifiers: (2) Perreux 6000B, McIntosh 2500, (2) McIntosh 2100, (4) Crown DC-300, BGW 500, BGW 150, Yamaha 2200, (2) Yamaha 2100, Yamaha 2050, AB Systems 150. Monitor Speakers: UREI 813B, Yamaha NS-20M, Yamaha NS-10M studio, Tannoy PBM 6.5, CSI MDM-TA3 Time-Align™, CSI MDM-TA2 Time Align™, Altec 604 w/Mastering Lab cross-overs, JBL 4333B, Pioneer HPM-700, Auratone 5C. Musical Instruments: Steinway B 1934 grand piano, Young Chang 7' grand piano, Hammond B-3 organ w/Leslie floor speaker unit, Yamaha DX7iIFD, Yamaha guitars, Gibson guitars, Martin guitars, Violette-Citron guitars, Tune guitars, Marshall amp, Fender amp, Aims amp, Sunn amp, Sound City amp, Polytone amp, Gretsch complete drum set w/world percussion and rare instrument collection. Other MIDI Equipment: NED Synclavier system w/200-track sequencer, Kurzweil MIDIboard, Roland Super Jupiter MKS-80, Korg DW-6000, Prophet-5 V. 10/05, Akai S900, Ensoniq ESQ-1, Macintosh w/Mark of the Unicorn Performer/Composer/Midi Paint! etc., Oberheim DMX w/MIDI, J.L. Cooper MSB+. Rates: Call for information. Specialization & Credits: Accommodations, full kitchen, swimming pool, production assistance with in-house musicians and video support available. The Dreamland Recording Studio has established itself as one of the premiere cutting environments in the country. With the ambience of a 100-year-old church and various acoustical environments to choose from, Dreamland has hosted clients such as Joan Jett, 10,000 Maniacs, The B-52s, Mick Taylor, Jack DeJohnette, Pat Metheny, Jerry Marotta, Ahmad Jamal, Pierce Turner, Joe Henry, Cruel Story of Youth, Syd Straw, Murphy's Law, Gary Burke, The Grapes of Wrath, Robbie Dupree, Cries and Hugo Largo.

[24+] **DYNAMIC RECORDING**; also *REMOTE RECORDING*; 2844 Dewey Ave., Rochester, NY 14616; (716) 621-6270. Owner: David Kaspersin. Manager: Sharon Whaley.

[24+] **EAST COAST SOUND LAB**; 8317 Philadelphia Rd., Baltimore, MD 21237; (301) 574-4223. Owner: Norman F. Noplock. Manager: Norman F. Noplock.

[24+] **EDGE TRACK**; 235 E. 13th St. #3-D, New York, NY 10003; (212) 505-9281. Owner: Visual Music. Manager: Jay Henry.

[24+] **EDISON RECORDING STUDIO**; 228 W. 47th St.; New York, NY 10036; (212) 921-0505. Owner: National Video Center. Manager: Obie O'Brien. Engineers: Gary Chester. Dimensions: Studio 60 x 60 x 24, control room 22 x 22. Mixing Consoles: SFL-6000E 48-track 56-input w/computer synth and Total Recall. Audio Recorders: (10) Otari and Studer 24/16/8/4/2-track recorders, Nakamichi DM-100 2-track digital, broadcast and audio cart machine. Synchronization Systems: Adams-Smith 48-track video/audio, Echo, Reverb & Delay Systems: (2) Lexicon Prime Time II, (2) Lexicon PCM42, (4) Marshall tape eliminator, (2) EMT 140, (2) AKG BX-20, AMS RMX 16, (2) Yamaha REV7. Roland SRV-2000. Other Outboard Equipment: (2) Pultec EQP-1A program equalizer, (2) Orban parametric equalizer, Eventide 949 Harmonizer, (4) Valley People Kepex II, J.L. Cooper time cube, UREI dual graphic equalizer, (20) tie line for easy synth and drum machine hookup, (2) UREI 1178 stereo, (2) dbx 160X. Microphones: B&K 4006, Neumann U89, Neumann U87, Neumann U67 tube, Neumann U48A tube, Neumann FET 47, Neumann KM86, Neumann KM56, RCA 44-77, AKG 414, AKG 451, AKG 460, PZM300, Sony C-37P, Shure SM81, Shure SM58, Shure SM57, Beyer M260, Beyer M88, Sennheiser 441, Sennheiser 421, E-V RE20, E-V RE50. Monitor Speakers: UREI 813 w/(2) Bryston 4B, Yamaha NS-10, Auratones. Musical Instruments: (2) drum set, grand piano, tack piano, celeste, B-3 organ, xylophone, vibes, orchestra bells and temple blocks. Rates: Upon request. Specialization & Credits: The Edison's enormous recording space and Tom Hildley-designed control room make this studio ideal for acoustic recording of major acts, orchestras, commercial jingles, etc. Also: two interlock video sweetening rooms, five voice studios, time compression, reel-to-reel and cassette duplication, transfers, music and FX libraries, scoring and soundtrack design. Video: three shooting stages (60 x 80, 40 x 50 and 20 x 30), seven online computer editing suites, two offline/interformat suites, negative color correction, remote production, videodisc premastering, computer graphics, animation stands, duplication—all formats.

[24+] **ELECTRIC LADY STUDIOS**; 52 W. 8th St.; New York, NY 10011; (212) 677-4700. Owner: Alan Selby. Manager: John Tummina. Engineers: Dennis Aichner, Bridget Daly, Mark Tindle, Joe Barbara, Gary Hellman, Dave Witman. Dimensions: Room 1: studio 35 x 38 x 18, control room 16 x 26 x 11. Room 2: studio 19 x 21 x 10, control room 17 x 27 x 12. Room 3: studio 19 x 21 x 10, control room 14 x 23 x 10. Mixing Consoles: Studio A, Focusrite 64 x 32 w/Massenburg automation; Studio B, SSL 4000E 56 x 32 w/G computer and Total

Recall: Studio C, SSL 6000E 64 x 32 w/G computer and Total Recall. Audio Recorders: (2) Studer A80 24-track, (4) Studer A800 24-track, (2) Studer A820 2-track 1/2", (2) Studer A80RC 2-track 1/2", Studer A80VJ 2-track 1/2", (3) Studer B67 2-track 1/4", (2) Studer A810 2-track 1/4", Sony PCM-1610/BVU-800, (3) Sony PCM-2500 Pro-DAT. Cassette Recorders/Duplicators: Tascam 122B, Nakamichi MR-1. Noise Reduction Equipment: Dolby A, Dolby SR. Synchronization Systems: Adams-Smith 2600. Monitor Amplifiers: Crown PSA-2, Crown PS-200, Yamaha P2200. Monitor Speakers: Westlake SM1 5-way, Westlake HR1 4-way, Westlake BBSM-12, Yamaha NS-10M, E-V Sentry 100. Video Equipment: JVC 8250 3/4", Sony BVU-800 3/4"

[24+] **ERNY RECORDINGS**; also *REMOTE RECORDING*; 1410 E. Carson St., South Side, Pittsburgh, PA 15203; (412) 431-4848. Owner: David W. Erny. Manager: David W. Erny.

[24+] **EUPHORIA SOUND STUDIO**; also *REMOTE RECORDING*; 90 Shirley Ave.; Revere, MA 02151; (617) 284-9707. Owner: Howard A. Cook. Manager: Mark Helms. Engineers: Gordon Hookalo, Rich Spears, Sean McGough. Dimensions: Room 1: control room 14 x 14. Room 2: studio 32 x 24. Room 3: studio 20 x 16. Room 4: studio 18 x 22. Mixing Consoles: Soundcraft 800 18 x 8, Tascam M-216 16 x 4. Audio Recorders: Otari MTR-90 16-track, Otari 5050 MkII 8-track, (3) Otari MX-5050 2-track, Sony PCM-601ES 2-track digital processor. Cassette Recorders/Duplicators: (10) Yamaha K540, (4) Aiwa F-660, Tascam sync. Noise Reduction Equipment: (8) dbx 150. Synchronization Systems: Garfield Masterbeat. Echo, Reverb & Delay Systems: (2) MIDVerb, ArtVerb, Lexicon 200 digital reverb, (2) Lexicon PCM70, (2) Lexicon PCM42, Yamaha SPX90, Yamaha E1010 analog delay, Master-Room XL-305, Lexicon Prime Time delay, Scholz Rockman Pro-rack. Other Outboard Equipment: PCM601 digital processor, (2) Valley People multifunction dynamic processors, dbx 20/20 computerized equalizer/analyzer, (3) dbx 900 parametric EQ, (2) dbx 900 compressor/limiter, (2) dbx 900 noise gate, dbx 900 de-esser, SAE MkXVII stereo octave EQ, Delta Graph EQ-10 graphic EQ, (2) Ashly peak limiter/compressor, (2) Ashly stereo noise gate, (2) Furman parametric EQ, dbx 161 compressor/limiter, Symetrix signal gate. Microphones: (2) Neumann U89, (2) Crown PZM, (4) Shure SM57, (3) AKG 451, (2) Sony ECM-56, (2) Sony ECM-22P, AKG 414, Sony ECM-33P, (2) E-V RE20, (8) Sennheiser 421. Monitor Amplifiers: Crown Micro-Tech 1,000-watt power amp, Sony TA-AX35 integrated stereo amp, Marantz 500-watt power amp, Dunlap Clark Dreadnaught 500-watt power amp. Monitor Speakers: (2) Altec Lansing 604, Yamaha NS-10, Auratone Super sound cubes. Musical Instruments: Yamaha G3 grand piano, Yamaha DX7, Yamaha TX218 w/(3) TX1 module, Roland JX-3P, E-mu SP-12 drum computer w/turbo, Oberheim XPI Xpander, Gibson SG guitar, Gibson acoustic round-back. Other MIDI Equipment: Akai S612 polyphonic sampler w/drive, Garfield Masterbeat SMPTE/synchronizer and clock converter, Macintosh computer running Performer software. Video Equipment: JVC 320 camera, JVC 3/4" portable deck. Other: Promo photography studio, Normon electronic flash setup, (3) umbrella system, Nikon 35mm F2 cameras, Roliflex SL66 2 1/2" and 4 x 5 Sinar formats. Rates: \$35/hr. 8-track, \$40/hr. 16-track, \$53/hr. 31-track, \$35/hr. MIDI studio.

Harmonizer, Lexicon Prime Time II, Lexicon PCM42, Bel BD80, Ursa Major Space Station, Yamaha SPX90. Other Outboard Equipment: Roland SRV-2000, Ibanez SDR-1000, Roland DEP-5, Alessi MIDVerb II, Orange County comp/limiters, dbx comp/limiters, Galax noise gates, Valley People Dyna-Mite, Ashly comp/limiters, Ashly parametric EQs. Microphones: Neumann U48 tube, Neumann U87 FET, AKG 414, AKG 451, Sennheiser 411, Sennheiser 421, E-V RE20, Shure SM57, Shure SM58, Crown PZM. Monitor Amplifiers: Yamaha P2200, Bryston IVB, Crown D-150. Monitor Speakers: UREI 811, Yamaha NS-10M, E-V Sentry 100A, Burhoe Crimson, JBL 4401, ROR. Musical Instruments: Kurzweil MIDBoard, Akai S900, Oberheim DPX-1, Yamaha TX816, Yamaha DX7-IIFD, Roland Super Jupiter, Oberheim OB-8, Yamaha RX5, Steinway grand, LinnDrum MIDI, Roland Juno-60 MIDI, Slingerland, Mesa/Boogie, Roland D-50. Other MIDI Equipment: Garfield Masterbeat, J.L. Cooper MSB+, J.L. Cooper 16/20, Garfield Dr. Click. Video Equipment: JVC 8250 3/4" VCR, Sony KV-1311 monitor, Adams-Smith Zeta-3, Beta and VHS VCRs. Other: Macintosh Plus hyperdrive, IBM AT-compatible 30MB hard disk, tons of software, great coffee, Belmont (our canine studio mascot). Rates: Upon request. Specialization & Credits: We're a full-service, 24-track studio with an enormous, clean sound and a meticulously maintained facility. Studio A's control room has just been enlarged and renovated in order to better accommodate our MIDI and video clients. We've added 3/4" video/SMPTE hookup as well as lots of other goodies. Studio B recently opened—a MIDI control room with an extensive array of samplers, synths, drum machines, computers and outboard gear. The two rooms can be linked together via tie-lines. Our credits include: Roy Ayers, Ginger Baker, Gil Scott Heron, Sly Dunbar/Robbie Shakespeare, Nina Hagen, Herbie Hancock, Golden Palominos, Harry Belafonte, Yellowman, The Slickaphonics, Brenda K. Starr, Southside Johnny, Nick Lowe, Africa Bambaataa, Gwen Guthrie, Meatloaf, The Manhattan, Red Hot Chili Peppers, Bill Laswell/Material, John Lennon's "Menlove Ave.," Via Afrika, Grandmexer D. St. Jean Street, *To Live and Die in L.A.*, *Married to the Mob*, Hugh Masekela, Curtis Bloom, Al B. Shure!, Maceo Parker, Johnny Coplin.

[24+] **FISHTRAKS**; also *REMOTE RECORDING*; 62 Congress St.; Portsmouth, NH 03801; (603) 431-5492. Owner: Thomas M. Daly. Manager: Thomas M. Daly.



**FORGE RECORDING STUDIOS**  
Valley Forge, PA

[24+] **FORGE RECORDING STUDIOS**; also *REMOTE RECORDING*; PO Box 861; Valley Forge, PA 19481; (215) 644-3266; (800) 331-0405. Owner: Inc. Manager: Warren R. Wilson. Engineers: Warren R. Wilson. Dimensions: Studio 28 x 32, control room 18 x 22. Mixing Consoles: NEOTEK Elite 32 x 26. Audio Recorders: Sony 3324 24-track digital, Sony 3402 2-track, Ampex ATR-100 2-track, Ampex ATR-100 4-track, (2) Ampex ATR-700 2-track, Scully 4-track, Otari 5050 1/4- and 1/2-track, Sony 1630, Sony PCM-2500 R-DAT. Cassette Recorders/Duplicators: MTI bin, Versadyne bin, Tandberg 910, Technics Noise Reduction Equipment: Dolby A, Dolby B, Dolby SR, dbx Echo, Reverb & Delay Systems: Klark-Teknik DN-780 AKG BX-20, Eventide Time Squeeze and Harmonizer, Marshall Time Modulator, Lexicon PCM70. Other Outboard Equipment: A/V pulse generator and reader, (4) Valley People noise gate, (2) Technics turntable, Soundcraft graphic EQ, UREI notch filter set. Microphones: (8) Neumann assorted, (2) AKG 414, (2) Sennheiser, (2) Synchron, (10) E-V assorted, (3) direct box, Crown PZM, Sony ECM-250, Shure assorted. Monitor Amplifiers: (2) Crown Monitor Speakers: (2) JBL 4315, (2) Auratone, (2) Altec. Musical Instruments: Rogers drum set, Baldwin concert grand, Baldwin microcomputer orch, Emulator II, Roland Octapad, many percussion instruments, bells, Mark Tree, blocks, Kurzweil 250, Alessi drum machine. Video Equipment: Video duplication only (no production). Rates: \$95/hr. 24-track digital, \$50/hr. 2-track and editing.

[24+] **FUNKY RECORDS RECORDING STUDIOS**; 244 Lyell Ave.; Rochester, NY 14608; (716) 458-5610. Owner: Boyd McCoy. Manager: Steve McNally.

[24+] **CHRIS GATELY AUDIO SERVICES**; only *REMOTE RECORDING*; PO Box 526; Bryn Mawr, PA 19010; (215) 525-3605. Owner: Christopher D. Gately. Manager: Carol Bailey.

[24+] **GIANT SOUND RECORDING, INC.**; 1776 Broadway; New York, NY 10019; (212) 247-1160. Owner: Douglas Pell.

[24+] **GRACE RECORDING STUDIO, INC.**; 159 Pelham Ave.; Hamden, CT 06518; (203) 288-9771; FAX: (203) 248-9442. Owner: Fred Rosornando, Lee Walkup. Manager: Richard Osterlind.



**GREAT IMMEDIATELY RECORDING**  
New York, NY

[24+] **GREAT IMMEDIATELY RECORDING**; 423 W. 22nd St.; New York, NY 10011; (212) 206-8561. Owner: Bob Christanson. Manager: Jean Blair. Engineers: Bob Christanson. Mixing Consoles: Harrison Raven 36 x 24. Audio Recorders: Studer A327 24-track, Sony 2500 DAT, Ampex ATR-102 2-track, Otari MTR-1211 4-track, Otari 5050B 2-track. Cassette Recorders/Duplicators: Nakamichi, Mitsubishi. Sony DAT machine. Noise Reduction Equipment: Dolby SR 24 tracks, dbx 2 tracks. Synchronization Systems: Cypher Digital Shadow II w/MaXipad for 24-trk and video. Echo, Reverb & Delay Systems: Lexicon 400, Lexicon PCM70 reverb, Lexicon PCM60 reverb, Eventide H949 Harmonizer, Korg SDD-3000, Korg SDD-2000 digital delay lines, Yamaha Rev7, Yamaha SPX90 reverb. Other Outboard Equipment: dbx 160 compressor/limiter, dbx 166 compressor/limiter, (2) UREI LA-4A, UREI 1176 compressor, Orban parametric EQ, Rane parametric EQ, UREI neotronic, Garfield Masterbeat synchronizer, Aphex Compellor, Barcus-Berry 802. Microphones: Neumann U87, AKG 414, Shure SM81, Shure SM41, (2) Crown PZM. Monitor Amplifiers: UREI, BGW. Monitor Speakers: E-V Sentry 100, ROR cubes, Yamaha NS-10. Musical Instruments: Wave-Frame AcidioFrame digital workstation, w/16MB RAM and 16 voices, Emulator II+ HD w/300-disk library and CD-ROM library, Roland Super Jupiter-8, Sequential Circuits Prophet-VS, Yamaha DX5, Yamaha TX802, Linn 9000 w/extensive sound library, Kurzweil MIDI controller, Roland Octapad, Roland D-50 synthesizer, Oberheim Matrix-6R, Roland MC-500 mini-computer, Kurzweil string expander, 360 Systems Midi Bass, Moog Minimoog, Steinway M 1939 grand, Korg sampling grand, Synclavier library, Fairlight library. Video Equipment: JVC 3/4" video deck, RCA VHS video deck. Rates: For in-house productions only. Specialization & Credits: Among the clients who have used Great Immediately Productions are CBS TV *The Equalizer*, Home Box Office, Cinemax, CBS TV *Give Me A Break*, PBS TV *The History of Television*, WCBS News Radio, CBS Sports, Sky Channel, Home Entertainment Network, Chevrolet, Ford, Procter & Gamble, Paine-Webber, Phillip: Light Bulb.

[24+] **GREENE STREET RECORDING**; 112 Greene St.; New York, NY 10012; (212) 226-4278. Owner: Steve Loeb. Manager: David Harrington. Engineers: Rod Hui, Nick Sansano, Chris Shaw. Mixing Consoles: Atrac APC1000 80-input, Trident TSM 32 x 24. Audio Recorders: Studer 800 24-track, Studer 820 24-track, Studer 827 24-track, (2) Studer A800 48-track, Sony/MCI JH-24 24-track, Studer A820 2-track, Studer A80 2-track, AEG 2-track. Cassette Recorders/Duplicators: (4) Tascam. Noise Reduction Equipment: (24) Dolby. Synchronization Systems: (2) Lynx Echo, Reverb & Delay Systems: Publison America Internal Machine, Lexicon 480L, (2) TC Electronic 2/90, Lexicon 224XL, Lexicon PCM70, (2) Lexicon PCM60, (4) Lexicon PCM42, Eventide 30H0, Bel BD8, AMS RMX 15. Other Outboard Equipment: Eventide H3000, (2) TC Spatial expander, (2) Tubetech expander, (2) Tubetech EQ, (2) Barcus-Berry Electronic, 802, Aphex II, OrbanStereo EQ, (3) UREI 1176, (2) UREI LA-3A, (2) Brook-Siren DPR402, Neve stereo lim/comp, Kepelex II/Gain Brain rack. Microphones: Neumann, AKG, Schoeps, Shure Sennheiser. Monitor Speakers: Roger Mayer Quested triamped 4-12", Meyer 833, Yamaha NS-10A, E-V Sentry 100. Musical

—CONTINUED ON NEXT PAGE

**EVERGREEN**  
RECORDING, INC.

**EVERGREEN RECORDING, INC.**  
New York, NY

[24+] **EVERGREEN RECORDING, INC.**; 215 W. 91st St.; New York, NY 10024; (212) 362-7840. Owner: Joel Greenbaum. Manager: Jan Oglanby. Engineers: Lance McVickar, Bill Rankin, Steve Breck, Struan Oglanby, Eddie Esz. Mixing Consoles: Harrison MR-3 36 x 24, Soundcraft 600 24 x 16. Audio Recorders: Ampex MM1200 24-track, Otari MTR-10 2-track, Otari MX-5050 MkII 4-track, Tascam 48 8-track, Technics 1500 2-track, Sony PCM-501 2-track (Beta or VHS). Cassette Recorders/Duplicators: Dennon. Noise Reduction Equipment: Dolby A 24-track, Dolby A 2-track, dbx 8-track. Synchronization Systems: Adams-Smith Zeta-3, Garfield Masterbeat. Echo, Reverb & Delay Systems: Lexicon 224XL, Eventide SP2016, Lexicon 200, Ecoplate II, Eventide H949

—CONTINUED FROM PREVIOUS PAGE



## Greene Street Recording, inc.

112 GREENE STREET • NEW YORK, NEW YORK 10012  
(212) 226-4278

### GREENE STREET RECORDING New York, NY

Instruments: Emulator II, Akai S900, Yamaha DX7, Yamaha DX7II, Yamaha TX816, Roland Super Jupiter MKS-80, Roland Planet P MKS-10, Roland Planet S MKS-30, Roland D-50, Roland GR-707 guitar synth/controller, Oberheim OB-8 MIDI, Sequential Circuits Prophet-5 MIDI, Roland Juno-106, Roland SBX-80, Roland MSK-700, Kahler Human Clock, Akai seq/drum machine, Linn seq/drum machine, E-mu SP-1200, Roland TR-707, Roland TR-505, Roland TR-808, Oberheim DMX, Oberheim DX, Steinway grand piano, Tama drum kit, Fender Rhodes piano, Hammond C-3 organ. Video Equipment: Sony BVU-800 3/4" w/TBC, Videotek KV-25 XBR monitors

[24+] **GROG KILL STUDIO**, Grog Kill Rd., Woodstock-Wilow, NY 12495; (914) 688-5373. Owner: Michael Mantler, Carla Bley. Manager: Michael Mantler. Engineers: Tom Mark. Dimensions: Room 1 studio 25 x 20, control room 14 x 22. Room 2 studio 10 x 12. Mixing Consoles: Harrison Raven 36 x 24 w/Audio Kinetics MasterMix automation. Audio Recorders: Otari MTR-90II 24-track, Otari MTR-12II 2-track 1/2" and 1/4", Studer A80RC 2-track 1/2" Cassette Recorders/Duplicators: (2) Tascam 122B, Denon DR-M22. Noise Reduction Equipment: Dolby SP-24 24-track, Dolby 361 4-track. Echo, Reverb & Delay Systems: Lexicon 224XL, AMS RMX 16, EMT 240, Lexicon Prime Time II, Lexicon Prime Time 95, AMS DMX 15-80S, Yamaha REV7. Other Outboard Equipment: Neve 2254A stereo/compressor/limiter, (2) UREI 1176LN compressor/limiter, (3) dbx 160 compressor/limiter, (2) Drawmer DL-231 compressor/limiter, (4) Drawmer DS-201 noise gate, (3) Roger Myster RM68 noise gate, Orban 621B Parasound stereo parametric EQ, ROF parametric, UREI 565T Little Dipper filter, (2) UREI 527A graphic EQ, Aphex C/103 Aural Exciter. Microphones: (4) Neumann U87, (2) Neumann KM84, (2) Sanken CU41, (2) Bruel & Kjaer 4006S, (4) Schoeps CM54U, (4) Beyer M160, Beyer M88, (8) AKG 414, AKG 451, AKG D-12E, AKG D-224E, AKG Tube, (4) E-V RE15, E-V RE20, (2) Sennheiser MD-421, (2) Shure SM57, (2) Sony ECM-33P Monitor Amplifiers: (2) Yamaha PC2002M, Crown D-150, (2) Crown D-60. Monitor Speakers: UREI 813B, Visonik David 7000, Tannoy NFM8, JBL 4311, Yamaha NS-10M. Musical Instruments: Steinway B grand piano, Hammond B-3 w/Leslie, LinnDrum, Ludwig drums, Korg Poly-61, Korg Poly-800, Korg DW-6000, Korg 8000, Korg BX-3, Korg SQD-1, Korg DDD-1, Ampeg B15N amp, Fender Twin Reverb amp. Other: Yamaha CDX1 CD player, Denon DP-51F turntable, Philips GA212 turntable, Beyer, AKG, Sennheiser, Fostex headphones, Countryman direct boxes, Sescor direct boxes. Rates: Per day only/on application.

[24+] **HILLSIDE SOUND STUDIO**, 102 Hillside Ave., Englewood, NJ 07631; (201) 568-3268. Owner: R P M Music Productions. Manager: Dave Kowalski, Dae Bennett. Engineers: Dae Bennett, Dave Kowalski, Frank Fagnano. Dimensions: Studio 35 x 20, control room 15 x 15. Mixing Consoles: Mitsubishi Westar w/Diskmix auto 40 inputs, Trois full Excom dynamics modules. Audio Recorders: Sony 3324 24-track digital, Studer A80 MkIV 24-track, Sony 3202 2-track digital, Studer A80 2-track 1/4", Studer A810 2-track 1/4" Cassette Recorders/Duplicators: (4) Tascam 122 Synchronization Systems: (2) Timeline Lynx module. Echo, Reverb & Delay Systems: Lexicon 224XL, (2) Lexicon PCM70, Lexicon PCM60, Yamaha SPX90, Lexicon Prime Time, Lexicon PCM42. Other Outboard Equipment: Eventide H949 Harmonizer, (8)



### HILLSIDE SOUND STUDIO Englewood, NJ

Kepelex II gate, (2) Gain Brain, Aphex Studio II stereo Exciter, Aphex: stereo Compellor, Eventide flanger, (2) UREI 1176LN limiter, Orban 536 stereo de-esser. Microphones: (4) Neumann U87, Neumann U47 FET, (2) Neumann KM84, (4) E-V RE20, (2) AKG 414, AKG D-12, (2) Crown PZM, (3) Shure SM58, (3) Shure SM57. Monitor Amplifiers: Crown DC-300, Crown DC-60. Monitor Speakers: UREI 813B, Yamaha NS-10M, Auratone 5C. Musical Instruments: Emax FE, Akai F950, Roland D-550, Oberheim DPX-1, Bosendorfer 7'4" piano, Yamaha Recording Series drums, Emulator II, Yamaha DX7, Oberheim Matrix-6R, E-mu SP-12, LinnDrum, Roland Octapad, Giosor J-200 guitar. Other MIDI Equipment: Mark of the Unicorn Performer Series software, Macintosh Plus, Yamaha SPX90 J.L. Cooper 8 x 10 MIDI patch bay, Garfield Drum Doctor, Kramer Pitchrider MIDI guitar. Video Equipment: JVC 6650 1/2" U-matic. Rates: \$50/hr. for analog 24-track. \$135/hr. for digital 24-track. \$65/hr. for digital 2-track.



### HIP POCKET RECORDING STUDIOS New York, NY

[24+] **HIP POCKET RECORDING STUDIOS**, 37 W. 26th St., New York, NY 10011; (212) 255-5313. Owner: Bob Merrill. Manager: Jim Doherty. Engineers: Joe Ariotta, Butch Jones, Rich Oliver. Dimensions: Room 1: studio 35 x 45 x 15, control room 20 x 26. Room 2: studio 20 x 30 x 12, control room 18 x 22. Room 3: studio 8 x 10, control room 16 x 18. Mixing Consoles: SSL 6056E 56 x 32 w/Total Recall/BG options/updates, MCI JH-542C modified 42 x 32 w/options/updates, Soundtracs 32-input console. Audio Recorders: Otari MTR-90 MkII 24-track, Sony PCM-3324 24-track digital, (2) MCI JH-16 24/16/8-track modified w/16-track Wuelke and 1" Wuelke Studer 2-track 1/2", MCI 110B 2-track 1/2" modified (5) MCI 2-track 1/4" modified, MCI 4-track 1/2" modified, Otari 5050 4 track, Mitsubishi 32-track full SSL hookup available. On request: Sony PCM-1610, Sony PCM-1630, Sony PCM-F1, Mitsubishi X-80, Mitsubishi X-86, DAT Cassette Recorders/Duplicators: (5) Nakamichi MR-1, Technics M85, Arwa Noise Reduction Equipment: (2) Dolby M frames 32 channels, TTM frame 24 channels, (14) Dolby 361 all NR Cat 22 plus K-9 in stock if req'd, Telcom by request. Synchronization Systems: (2) Adams-Smith w/readers, 1 gen., (3) 2600 character inserter, full range interharnesses and extra 2600s by request. Echo, Reverb & Delay Systems: Lexicon 224XL, Lexicon PCM60, Lexicon PCM70, Lexicon PCM42, Audicon plates AKG BX-10, Lexicon 200, DeltaLab Acoustic Computer, Yamaha SPX90, AMS DMX 15-80S, Bel BD-80, Marshall AR-300 tape eliminators. Other Outboard Equipment: dbx 160, dbx 165, Orban 622B, Orban 516EC, Valley People Dynamic, Panscan Drawmer gates, Kepex, Roger Mayer, Eventide Harmonizer: effects, UREI 1176, UREI LA-2A, UREI LA-3A, UREI graphics. Prime Time, Yamaha REV5, Yamaha REV7 (4)

Yamaha SPX90 Microphones: Neumann U87, Neumann U67, Neumann U47 original tube, Neumann KM84, AKG tube mics, AKG 414EB, AKG 451, E-V RE20, Shure SM57, RCA 44 ribbons, RCA 77 ribbons, Sennheiser 441, Sennheiser 421, E-V CS15, E-V RE15, E-V RE20, E-V RE16, Crown PZM, Beyer ribbons. Monitor Amplifiers: (2) UREI 6500, Bryston 4B, Bryston 3B, Crown 300, Crown 150, Crown 75, BGW 75. Monitor Speakers: UREI 813A, UREI 813, (3) E-V 100A, (2) Yamaha NS-10M, (6) Auratone cube. Musical Instruments: Synclavier 16 outs/16 FM/32 Poly/14MB RAM (optical disk drive, 4-track direct-to-disk), all SMPTE MIDI and sampling, Yamaha DX7, Tama drums, Yamaha grand piano, Steinway grand piano, Roland Super Jupiter, Yamaha TX816, vid 48 and Film Chase, percussion. Other MIDI Equipment: NED CIM-1 clock interface module, NED full option MIDI in-out, IBM PC. Video Equipment: JVC 8250U w/RM70, JVC 6650U w/RM70. Other: Resolver for Otari and all MCIs, 60-line pilot, 60 xtal, 50 xtal, composite (Sigma 365 w/PDA throughout), video, 59.9 striped also, note SSL and modified 542 harnessed standard for 48+ tracks, interstudio tie lines 27 plus 8 to copy chain, multitrack format layback for video and film, direct 1" video layback special request, MCI extra headstacs 1/4" mono and 1/4-track, surround-sound film mixing.

[24+] **HIT AND RUN STUDIOS, INC.**, also **STUDIO RE-CORDING**, 18704 Muncaster Rd., Rockville, MD 20855; (301) 948-6715. Owner: Steve Carr. Manager: Steve Carr.

[24+] **THE HIT FACTORY, INC.**, 237 W. 54th St., New York, NY 10019; (212) 664-1000. Owner: Edward Germano. Manager: Troy Germano.

[24+] **THE HIT FACTORY, TIMES SQUARE, INC.**, 130 W. 42nd St., Ste. 952, New York, NY 10036; (212) 664-1000. Owner: Edward Germano. Manager: Troy Germano.

[24+] **HORIZON RECORDING**, 29 Tito Ln., Wilton, CT 06897; (203) 762-2985. Owner: Horizon Recording Co., Ltd. Manager: Ingrid Paaske, Vic Steffens. Engineers: Vic Steffens, Chris Brown, Willie Wilcox. Dimensions: Room 1: studio 40 x 30, control room 32 x 26. Room 2: studio 11 x 17, control room 20 x 17. Mixing Consoles: Allen and Heath Sigma 44 x 24, Sound Workshop 32 x 8. Audio Recorders: Studer A80 24-track, 3M M79 24-track, Sony APR-5002 2-track 1/2" and 1/4", Otari 5050 2-track. Cassette Recorders/Duplicators: Sony 2600 R-DAT, Tascam 122, Arwa Noise Reduction Equipment: (2) Dolby SR, A Synchronization Systems: Hybrid Aris Smpete Mixer, Passport MIDI transport. Echo, Reverb & Delay Systems: Lexicon 480L, (3) Lexicon PCM70, AKG 68K, Eventide H3000 Harmonizer, (2) Yamaha SPX90II, Alesis MIDiverb II, TC Electronic 2202 delay w/11 sec. and quick trigger. Other Outboard Equipment: (4) UREI 1176LN, (2) UREI 7110, dbx 166, (3) Aphex 612 gate (6 channels), (2) Lang PEQ2, Yamaha GC-2020 comp/limiter, Yamaha GO1031 EQ, Neve Prism rack w/(2) Dynamics and (2) EQ modules, Audioarts 3100A EQ. Microphones: (2) Neumann U87, (2) AKG 414ULS, AKG 414EB, (4) AKG 451, (4) Sennheiser 421, Sennheiser 441, AKG D-112, E-V 757, (2) Shure SM57, AKG "The Tube," Neumann U67 tube. Monitor Amplifiers: (3) Halfer P500, (2) Halfer P2300, Yamaha P2500. Monitor Speakers: (2) UREI 813, (2) Tannoy SG-10, (2) Tannoy SG-15, (2) Yamaha NS-10, (2) ROR Cube, (2) JBL Control 5. Musical Instruments: (2) Akai S1000 sampler, Yamaha TX802, Yamaha DX7IIFD, Roland D-550, Roland RD-250 digital piano, (2) Korg M1, Minimoog w/MIDI, Oberheim OB-8 w/MIDI, Yamaha TX416, Korg EX-8000, Oberheim Matrix-6R, Akai MPC60 drum machine/sequencer, Yamaha RX5 drum machine, Alesis HR-16 drum machine. Other MIDI Equipment: (2) KMX MIDI central switcher, Roland Octapad, Kawai M8000 controller, Simmons Portakit. Other: Macintosh Plus w/MIDI Transport, Atari Mega 4, IBM PS2 w/MPU 401, various software sequencers and editors. Rates: Please call.

[24+] **HOUSE OF MUSIC, INC.**, 1400 Pleasant Valley Way, West Orange, NJ 07052; (201) 736-3062; (212) 964-7444. Owner: Charles E. Conrad. Manager: Irene Conrad. Engineers: John Rollo, Jim Bonnetford, Paul Higgins, Nelson Ayres, Daniel Grigsby, Charlie Conrad, Mike Weisinger, Jeff Toone, Marc Marsaglia. Dimensions: Room 1: studio 30 x 40, control room 18 x 22. Room 2: studio 18 x 23, control room 16 x 22. Room 3: control room 24 x 32. (4) MIDI pre-production suites. Mixing Consoles: Neve V Series MkII 60 inputs w/Neacem 96, MCI model 528 x 32 w/automation, Neve V Series 48 x 96 (July 1989). Audio Recorders: (2) Studer A800 MkII 24-track, (2) Studer A820 24-track, (3) MCI JH-24 24-track, (4) Studer A80VU 2-track, (2) Studer A820 24-track, Sony PCM-F1 2-track, Sony PCM-2500 Pro DAT. Cassette Recorders/Duplicators: (4) Pioneer, (5) Technics, (4) Tascam Noise Reduction Equipment: Dolby 26-track, dbx 56-track, Dolby SR. Synchronization Systems: Adams-Smith synchronizer, MCI JH-45 synchronizer. Echo, Reverb & Delay Systems: Live chain, (3) EMT 140 plate, EMT 250 digital, (2) AKG BX20, (2) Yamaha REV7, (2) AMS DDL, (2) AMS reverb, Lexicon 224XL, (2) Lexicon PCM70, (4) Yamaha SPX90, (2) Lexicon PCM41, (2) Lexicon PCM42. Other Outboard Equipment: (8) Eventide DDL, (4) Eventide Harmonizer, (40) outboard equalizer, (2) Fairchild 670 stereo limiter, (24) UREI limiter, (12) dbx limiter, (8) Pultec tube limiter, (4) UREI LA-2 tube limiter, (20) noise gate, (16) Valley People Dyna-Mite gate, Tubetech EQ and compressors. Microphones: Over 140 microphones including many tube and stereo mics, Neumann, Schoeps, E-V, AKG, Sony, Shure, Crown PZM. Monitor Amplifiers: (4) McIntosh

2500, (16) Crown DC-300, (8) Crown D-150. Monitor Speakers: (4) UREI 813B, (2) Westlake TM1, (6) Yamaha NS-10, (8) Big Red, Tannoy NFM-8 ROR, Auratone, JBL 4401, JBL 4311, JBL 100, UREI 809. Musical Instruments: Pearl drums, Tama drums, (2) Yamaha 7'4" grand piano, Hammond B-3 w/Leslie, (2) Fender Rhodes, (3) timpani, all percussion, (2) Hohner Clavinet, (12) assorted guitar amps, Steinway 9' grand piano, vibes, all synthesizer w/MIDI and Mac computers. Video Equipment: Synchronization to Sony 3/4" via Adams-Smith lockup. Other: (4) Aphex Aural Exciter, UREI Little Dipper filter set, UREI Cooper Time Cube, (2) Neve limiter, DeltaLab Acoustic Computer, Lexicon Prime Time. Rates: Upon request. Specialization & Credits: Comprehensive synthesizer consultation and production services available on arrangement with Larry Fast/Synergy. Available is a full range of digital and analog sampling and MIDI-linked synthesis. Rental synthesizers range from Fairlight CMI, Emulator II and LinnDrum, down to Casio CZ-101. Synchronous Technologies SMPTE-to-sequencer link-up. Full in-house production and arranging services available for all styles of music from an experienced staff who have impressive track records, including Kool & the Gang, Bonnie Tyler, Jimmy Cliff, Peter Gabriel, Southside Johnny, Meat Loaf, Joe Cocker, Britny Fox, Paula Abdul, Buster Poindexter, Omar Hakim and others. Scenic seven-acre site 25 minutes from midtown Manhattan with our own 24-hour car service, pool, jacuzzi, kitchen and residential facilities. House of Music provides a full range of client services for record production, audio-for-visual post-production for TV, music video, film and commercial advertising work.

[24+] I.N.S. RECORDING; 19 Murray St., New York, NY 10007; (212) 608-1499. Owner: Ian and Debbie North. Manager: Trude Kay. Engineers: Dan Sheehan, Gary Clugston, Hugh French. Dimensions: Studio 12 x 13, control room 12 x 17. Mixing Consoles: MCI 636 36 x 24 w/automation. Audio Recorders: Otari MTR-90 24-track, Otari MTR-12 2-track 1/2", (2) MCI J110C 2-track 1/2". Cassette Recorders/Duplicators: (4) Nakamichi MR-2. Synchronization Systems: Roland SBX-80 MIDI/SMPTE sync box. Echo, Reverb & Delay Systems: Lexicon 224XL, Lexicon 200, Yamaha REV7, AMS DMX 15-8S, Lexicon PCM41, Lexicon PCM42, Yamaha SPX90 digital effects/processor, (2) DeltaLab 1024 Effectron II, (2) Korg SDD-2000, Roland SDE-1000, Eventide 910 Harmonizer. Other Outboard Equipment: API 5502 dual 4-band parametric EQ, (2) UREI dual graphic EQ, (2) Valley People Maxi-Q parametric EQ, Barcus-Berry Electronics 802 EQ, Aphex C Aural Exciter, (2) dbx 165A compressor/limiter, (2) dbx 160X compressor/limiter, dbx 166 dual compressor/limiter/gate, Valley People Gain Brain compressor/limiter, (4) Kepex noise gate, Drawmer dual noise gates, Valley People Dyna-Mite dual noise gate/compressor/lim, Valley Audio GateX 4-channel noise gate, Roland Vocoder. Microphones: Neumann U87, AKG 414EB, Sennheiser 441, E-V RE20, Shure SM57, Shure SM58, Beyer, Audio-Technica Monitor Amplifiers: Haller, UREI. Monitor Speakers: UREI 813, Yamaha NS-10, E-V Sentry 100. Musical Instruments: Roland D-550, Roland Juno-60, Ensoniq ESQ-M, Yamaha MEP4, Korg M-1, Midimoo, Emulator II w/CD ROM library, Yamaha DX7IIIFD, Roland Super Jupiter, Oberheim Matrix-6, Sequential Circuits Prophet-5, Yamaha TX81Z, Akai S900, Roland D-550, E-mu SP-12, E-mu SP-1200, Linn 9000 w/disk drive and sampling, Roland TR-808, Roland Octapad, Simmons SDS5 5-piece drum set, Rogers drums, Fender Jazz bass, Fender Telecaster, Roland Cube 60 guitar amp. Other MIDI Equipment: Voyetra MR3, Patchmaster Plus, J.L. Cooper 16/20 MIDI switcher, Roland SBX-80 sync box, Dr. Click Mini interface. Other: IBM-compatible PC w/Texture II MIDI sequencer, Voyetra Sequencer Plus MkIII and Patchmaster, Macintosh Plus w/Performer Drumfile, Apple IIe w/Yamaha Pro DX, Roland Super Jupiter software. Rates: Basic \$50/hr., block \$45/hr.

[24+] IRIS SOUND; also REMOTE RECORDING; 237 Main St., Royerford, PA 19468; (215) 948-3448. Owner: David Ivory. Manager: Darragh Ribble. Engineers: David Ivory, Todd Marsden, Steve Carlisle. Dimensions: Geodesic Dome studio 44 x 22, control room 18 x 20. Ambient room 18 x 14 x 16. Mixing Consoles: Allen and Heath 32 x 8. Audio Recorders: Soundcraft 760 MkIII 24-track, Fostex B-16 DM6-track, Otari 5050 MII 2-track, Sony F1 2-track digital, Sony 2500 Pro DAT Cassette Recorders/Duplicators: Tascam 122, (2) TEAC, (10) Onkyo. Synchronization Systems: Synchance MTS-1 MIDI/SMPTE Echo, Reverb & Delay Systems: Lexicon PCM60, (2) Yamaha SPX90, (2) Alesis MIDiverb II, Effectron digital delay, Lexicon PCM41, ADA delay, Roland delay, (2) Yamaha RE-850, (2) Lexicon LXP-1 microverb. Other Outboard Equipment: GateX noise gates, Omni Craft noise gates, Symetrix noise gates, Aphex Exciter, Orban stereo parametric EQ, (2) Rane 1/2-octave EQ, (2) Ibanez 1/2-octave EQ, dbx stereo comp, UREI 1176 limiter, Aphex Type C Aural Exciter, Drawmer gates. Microphones: Neumann, AKG, Sennheiser, Shure. Monitor Amplifiers: BGW, (2) Crown. Monitor Speakers: JBL, Yamaha NS-10, ROR, Auratone. Musical Instruments: Emulator II, Emax, Linn w/MIDI, Linn Akai MPC60, Yamaha DX7, Yamaha TX7, Roland Juno-106, Roland Juno-1, Roland Octapad, Marshall 1972 50-watt w/4 12", Fender 1976 Strat, 1962 Premier 5-piece drums, Ibanez MIDI guitar, Minimoog w/MIDI. Other MIDI Equipment: Macintosh Plus computer w/20MB hard drive, Opcode Studio Plus MIDI interface w/Mark of the Unicorn 2.4 Performer software for 250 tracks of MIDI recording/editing, Opcode MIDIMAC DX7 editor/librarian w/5,000 patches, blank software Drumfile for SP-12 and Digidesign Sound Designer for Emax. Video Equipment: Sony

3/4", (2) Sharp VHS. Other: Herbal tea. Rates: \$40/hr. 16-track, \$50/hr. 24-track, plus \$10/hr. all MIDI.



KAJEM VICTORY  
Gladwyne, PA

[24+] KAJEM VICTORY; 1400 Mill Creek Rd., Gladwyne, PA 19035; (215) 649-3277. See *Our Ad in the BusinessPages!* Owner: Kurt Shore. Mitch Goldfarb, Sam Moses, Joe Alexander. Manager: Monica Tannian. Engineers: Mitch Goldfarb, Joe Alexander, Brooke Hendricks, Brian Stover, Joe Stout, Terry Hoffman. Dimensions: Studio 35 x 30, control room 25 x 20 w/separate tape machine alcove behind glass doors, ambient recording space 2,000 sq.ft. w/25' ceilings. Mixing Consoles: SSL 4048E w/Total Recall. Audio Recorders: Studer A80 MkIII 24-track, Otari MTR-90II 24-track, Studer A80RC 2-track 1/2", Studer B67 2-track 1/4", (2) Otari 5050B 2-track Revox B77 1/4-track, Sony PCM-501, Otari 5050-II Cassette Recorders/Duplicators: (4) Tascam 122. Noise Reduction Equipment: Dolby A 2-channel. Synchronization Systems: Adams-Smith Echo, Reverb & Delay Systems: EMT 251, Sony DRE-2000, AMS RMX 16, AMS DMX 15, Lexicon 480L, Lexicon PCM70, Yamaha REV7, Yamaha SPX90, Ursa Major Space Station, Eventide H949 Harmonizer, Lexicon Prime Time II, Yamaha REV5, Lexicon PCM42. Other Outboard Equipment: (4) Focusrite EQ, DeltaLab Acoustic Computer, DeltaLab Effectron, Eventide J1193, Eventide Instant Phaser/Illanger, ADR Pancscan Autopan, Acoustilog Image Enhancer, Barcus-Berry Electronics stereo processor, EXR Exciter, MXR 1500 DDL, Massenburg stereo parametric EQ, Dyno-Mi tri-stereo/chorus, Roland Dimension "D," Teletronix LA-2A UREI 1176, UREI LA-3A, Drawmer 1960 tube limiter, ADR compex/stereo vocal stresser, dbx 163, Valley People Gain Brain II, Drawmer gates, Valley People Kepex II, Scamp expander/gates, Scamp de-esser, Symetrix limiter/compressor/de-esser, Scamp Dynamic EQ/low-pass filter, UREI 535, UREI 537 graphics, API 550A, Pultec EQ-1A, Pultec MEQ, ADR sweep EQ quasi parametric. Microphones: Neumann U87, Neumann 47, Neumann 47 FET, Neumann TLM170, Neumann 67, Neumann 84, AKG C-24, AKG "Tube," AKG 451, AKG 414, AKG D-12, AKG D-112, E-V RE20, E-V RE16, Sanken CU-41, RCA 77, Beyer M160, Crown PZM, Isomax lavaliere: Sennheiser 421, Sennheiser 441, Shure SM57, Shure SM58, Shure SM54, Shure SM81, Sony ECM-989, Sony C37 Monitor Amplifiers: Haller, Crown. Monitor Speakers: UREI 813 modified w/Acoustilog crossover and biamped, Tannoy SRM-12B, Yamaha NS-10, Visonik David 7000, Auratone 5C, JBL C50. Musical Instruments: Kurzweil 250/RMX, Roland D-550, Roland S-550, Roland D-110, Roland Juno-60, Yamaha DX7, Yamaha RX5, Ensoniq ESQ-1, Ensoniq Mirage, Kawai K1, Oberheim Matrix-6R, Minimoog, LinnDrum w/MIDI, Hammond Porta B organ, Fender Rhodes, Pearl drums, Yamaha 7'4" grand piano, Marshall vintage amp/cabinets, Fender amp, Music Man amp. Other MIDI Equipment: Macintosh 512E w/Performer software, Atari 1040ST, Roland SBX8C Human Clock. Other: AKG, Koss, Fostex headphones, Westlake, Countryman, Axe direct boxes, Rocktron Hush II, Tom Scholz power soak. Rates: Call for rates, block bookings and packages available. Specialization & Credits: Residential facilities. Luxury condo, pool, MIDI suite, ambient room with 25' ceilings. Best drum room on the East Coast Cinderella (first and second LP), Queensryche, Warlock, Metalchurch, Tangier, Faith N'Fear, Dream Theater. Home to Teddy Pendergrass, Miles Jaye. Philly's only 48-track SSL studio.

[24+] KAMEN RECORDING STUDIOS; 701 7th Ave., New York, NY 10036; (212) 575-4660. Owner: Roy and Marina Kamer. Dimensions: Room 1 studio 20 x 30 x 12, control room 19 x 20 x 12. Room 2 studio 20 x 30 x 12, control room 19 x 20 x 12. Mixing Consoles: MCI JH-636 automated mix-down 36-input, Trident 80B 32-input, TAC Scorpion 24 x 16. Audio Recorders: MCI JH-24, Ampex MM-1200, Tascam 38 w/dbx, (2) Otari MTR-12 2-track 1/2", (3) Otari MX-55 2-track 1/4", MCI JH-110A 2-track 1/2", Studer A810 2-track 1/4", Ampex 440 4-track 1/2". Cassette Recorders/Duplicators: (2) Nakamichi 700XL, (3) Denon M24HX, Nakamichi BX-300. Synchronization Systems: Adams-Smith 2600, Adams-Smith Zeta-3 Echo, Reverb & Delay Systems: (2) Lexicon 224XL,

(2) Echo Plate III, (25) assorted reverb and delay. Other Outboard Equipment: (40) assorted gate/compressor/equalizer/processor. Microphones: (50) 18 assorted brands of high-end microphones. Monitor Amplifiers: (3) McIntosh 2500 amp, (6) assorted Monitor Speakers: (2) Big Red, (2) UREI 813B, (2) UREI 809, (12) assorted. Musical Instruments: Steinway grand piano, Hammond B-3 organ, (15) assorted acoustic and electric instruments and amps, (15) digital/analog synths, samplers and drum machines. Other MIDI Equipment: (2) computer and dedicated sequencer. Specialization & Credits: All types of music recording, jingles, scoring, radio production, phone patch, sound effects libraries and creation, voice-over casting, Foley FX, in-house engineering staff, MIDI programming, music libraries, VCR-to-audio sync, VCR playback, mix-to-pix, 35mm mag transfers, musician contracting, full production services. Recent artists: Chuck Mangione, Rod Morganstein (Dixie Dregs), Marina, Tiffany Yyme. Recent advertising agencies: Lintas, Ogilvy & Mather, J.W.T., Saatchi & Saatchi, Scali McCabe Sloves, Backer & Spielvogel, FCB Leber Katz, Grey, HBM Creamer, McCaffrey McCall, CBS-TV. We specialize in service. Our studios are spacious and comfortable, our staff is highly trained and easy to work with, and our equipment is always perfectly maintained and upgraded regularly. Brochures are available.



LEGEND RECORDING STUDIOS  
Belleville, NJ

[24+] LEGEND RECORDING STUDIOS; also REMOTE RECORDING; 42 Belmont Ave., Belleville, NJ 07109; (201) 751-9528. Owner: Anthony Pomponio. Manager: Anthony Pomponio. Mixing Consoles: TAC Scorpion 32 x 8 x 2, Hill B Series 16 x 8 x 2. Audio Recorders: Otari MTR-100A 24-track, Otari MX-5050 8-track, Otari MX-5050B 2-track, Tascam 32 2-track, TEACA-3300DX 1/4-track. Cassette Recorders/Duplicators: Nakamichi MR-1, Akai GX-F71. Noise Reduction Equipment: (4) dbx 180 8 channels, (24) Dolby SR A 24 channels Echo, Reverb & Delay Systems: (2) Lexicon PCM70, Lexicon PCM42. Other Outboard Equipment: (2) dbx 160X compressor/limiter, (2) Rane GE-27 1/2-octave graphic equalizer, Drawmer DS-201 2-channel noise gate, UREI Model-546 2-channel parametric equalizer, Tapco Model-2200 2-channel graphic equalizer. Microphones: AKG 414, Neumann U87, (2) Shure SM58, (4) Shure SM57, (4) Electro-Voice 635A, (4) Sennheiser MD-421, (2) Sony ECM-50. Monitor Amplifiers: (2) Crown D-75, JBL Model 6290. Monitor Speakers: (2) JBL 4412 studio monitor, (4) Auratone 5C, (2) Yamaha NS-10 studio monitor. Musical Instruments: LinnDrum, Yamaha DX7, Yamaha acoustic guitar. Video Equipment: Sony BVU-150 3/4" VTR, (2) Hitachi 1/2" VTR, (2) Sony video monitor. Specialization & Credits: Corporate communications; multitrack post audio sweetening, field audio and video productions, original sound track openings for video productions. Advertising agencies: professional jingles, voice over for radio and television, original sound effects. Bands: 24-track recording with new Otari MTR-100A Legend Recording Studios has built a reputation that settles for nothing less than optimum sound quality. For over 8 years Legend's engineering staff has satisfied the most critical ears in the business including: Peter Wallach Enterprises, Hank Forsberg, Inc., The Lempert Company, Inc., Corporate Television Groups of New Jersey Bell, Bellcore, AT&T, ADP Prudential and Nabisco, as well as Composite Video Productions, Rainbow Video, Padden and Associates, Vision Craft Productions, Inc. and Wilson Communications. Achievements and credits: The National Silver Microphone Award, 1985 for Leonard Kreusch Wines radio commercial and The Association of Visual Communicators, Silver Award, 1987 for Bellcore television program *Private Virtual Network*.

[24+] LION & FOX RECORDING, INC.; 1905 Fairview Ave. NE, Washington, DC 20002; (202) 832-7883. Owner: Hal Lion, Jim Fox. Manager: Rick Starkweather.

[24+] LONDON BY NIGHT RECORDERS; 502 Gorham Ave., Woodbridge, NJ 07095; (201) 750-1960. Owner: William and Janice Kollar. Manager: Janice Kollar.

# 24+ TRACK STUDIOS

[24+] **LONG VIEW FARM**, also **REMOTE RECORDING**; Stoddard Rd.; North Brookfield, MA 01535; (508) 867-7662. Owner: Gil Markle. Manager: Jesse Henderson

[24+] **LYX MUSIC PRODUCTION & RECORDING STUDIOS**; 25 Foster St., Worcester, MA 01608; (617) 752-6010. Owner: Paul Weddle, Bob Gilpatrick, Andy Celley. Specialization & Credits: More than just a recording studio. 24-track recording in a fully equipped control room with one of New England's most advanced studios for acoustic design. Competitively priced to allow you more time to achieve music and audio excellence. Artist music production for the entertainment industry where we develop your songwriting, arranging and performance into a commercially viable product that will get you noticed by record companies and your listening audience. Commercial music production for the business community (jingles, I.D.s, que, theme, bridge and background music) to enhance your overall marketing strategy and make your sales message exciting, creative and memorable. Veteran staff of talented producers, writers, arrangers, singers, musicians and technicians to help you reach your music production goals. Let us know your broadcast goals by phoning our 24-hour business line for information, consultation, studio tour and brochure. (617) 752-6010

[24+] **THE MAINFRAME**; 2427 Maryland Ave., Baltimore, MD 21218; (301) 467-1488. Owner: The Main Frame Ltd. Manager: Stephen Palmieri

[24+] **MANHATTAN CENTER STUDIOS**; 311 W. 34th St.; New York, NY 10001; (212) 279-7740. Owner: One Up Enterprises. Manager: Steve Honey. Engineers: Roy Clark, Robert Carvell, Klaus Guenther, Leon Harris, Richard Wolf, Tony Francisco. Dimensions: Room 7: studio 94 x 98 x 40 w/54 x 95 x 30 stage, control room 16 x 18. Room 8: studio 23 x 28 x 16, control room 12 x 13. Mixing Consoles: SSL 4056 48 x 32 G-Series w/Total Recall, TAC Scorpion 28 x 12, Soundcraft 20 x 2, Soundcraft 16 x 2. Audio Recorders: Otari DTR-900 32-track digital, Otari MX-80 24-track, Otari MTR-10 2-track w/Dolby SR, Otari 5050 2-track w/dbx, (2) Revox A77 2-track, Sony PCM-601 2-track w/VCR, Panasonic SV-3500 R-DAT Cassette Recorders/Duplicators: Tascam 122L, Nakamichi, JVC, Sony Noise Reduction Equipment: Dolby SR 2 channels, dbx 2 channels. Echo, Reverb & Delay Systems: Lexicon 480L, Yamaha REV5, EMT 140 stereo, EMT 140 mono tube, Roland SRV-2000, TC Electronic 2290 sampler/DDL, Lexicon PCM41, Roland RE-201. Other Outboard Equipment: Jensen/Boulder mic pre, Focusrite 115, Valley People Gain Brain, Kepex II, Valley People Dyna-Mite, Valley People GateX, (4) dbx 160, UREI LA-2A, (2) UREI LA-3A, (2) Rane PE15 parametric EQ, Eventide H910, Eventide H3000, Aphex Type C Aural Exciter, Yamaha SPX90, TubeTech PE-1B, SAE 1/2-octave graphic EQs, SAE parametric EQs, UREI graphic EQs. Microphones: Schoeps MK2S, B&K 4006, AKG C-24 stereo tube, AKG 414, AKG 460, AKG 452, AKG 1000, AKG D-12A, Neumann KM56, Neumann U87, Neumann U47, Sony ECM-50, Sony C-55, Sony C-500, Sennheiser 441, Sennheiser 421, E-V RE16, E-V RE11, E-V RE10, Audio-Technica ATM41, Audio-Technica ATM21, Shure, Crown PZMs. Monitor Amplifiers: McIntosh, Carver, Crown, Phase Linear. SAE Monitor Speakers: UREI 813B, UREI 809, Yamaha NS-10, JBL 4311, Auratone. Musical Instruments: Steinway L 5'6", (4) Impiani, bass drum, mixed drum kits, xylophone, (55) music stands w/lights, synths, drum boxes on request, Iwied Fender Bassman amp. Video Equipment: SMPTE lockup for film scoring.

Rates: On request. Specialization & Credits: Our phenomenal acoustics have received praise from the world's top engineers, producers and musicians. Studio 7 is 94' x 98' with a 40' arched ceiling and full stage (54' x 95') making it one of the largest recording rooms in the world. The convenient location on a main cross street is only a block from Penn Station and major subway lines. For live recording (teleproduction, video shoots, etc.) the hall seats 1,200 and is equipped with lighting and staging. 3-room control area wired with Monster and Mogami cable. (Special rates to use control room only for mixing.) Clients and artists include: The New York Philharmonic, Leonard Bernstein, Zubin Mehta, James Levine, Pierre Boulez, Metropolitan Opera, Pavarotti, Domingo, Perlman, Ashkenazi, Broadway cast albums, RCA, CBS, EMI, Nonesuch, PolyGram, Deutsche Grammophon, MTV, Joan Jett, Starship, The Hooters, Dave Edmunds, etc.

[24+] **MANHATTAN RECORDING COMPANY, INC.**, also **REMOTE RECORDING**; 135 W. 14th St., New York, NY 10011; (212) 929-5960. Owner: Manhattan Recording Company, Inc. Manager: Nick Gutfreund. SEE OUR PHOTO NEXT COLUMN



**MANHATTAN RECORDING COMPANY, INC.**  
New York, NY



**MARATHON RECORDING STUDIOS**  
New York, NY

[24+] **MARATHON RECORDING STUDIOS**; 12 W. 37th St.; New York, NY 10018; (212) 967-1515. Mixing Consoles: Neve V60 MkII 60 input, Neve B232 32 input. Audio Recorders: Otari MTR-90, Studer A80 24-track, (2) Studer A820 2-track, (2) Studer A80 2 4-track, (2) Studer A8 0 mono, Sony PCM-3324 24-track digital. Noise Reduction Equipment: (30) Dolby A 30-channel. Synchronization Systems: (2) TimeLine Lynx. Echo, Reverb & Delay Systems: Too numerous to list. Monitor Speakers: Ure: 813B, Westlake BBSM-12. Musical Instruments: N E D. Synclavier w/optical disk. Rates: Call for rates.

[24+] **MASON HALL RECORDING STUDIOS**; State University College at Fredonia; Fredonia, NY 14063; (716) 673-3154. Owner: State of New York. Manager: Mary Van Houten.

[24+] **MASTER SOUND ASTORIA**; 34-12 36th St.; Astoria, NY 11106; (718) 786-3400; FAX: (718) 729-3007. Owner: Ben Rizzi. Maxine Chreim. Manager: Maxine Chreim. Specialization & Credits: MSA's Studio A1 is New York's premier "Big Room" recording studio. It features a new NEVE V Series console with 60 automated inputs, 48 tracks of digital or analog recording and a full complement of outboard equipment. Master Sound opened 16 years ago and relocated in 1985 to the Kaulman Astoria Studios, a motion picture and television production complex. Under the direction of co-owners Ben Rizzi and Maxine Chreim, MSA has attained widespread industry recognition for its acoustical integrity and for pioneering the world's first all-digital, broadcast recording session via fiber optics and satellite. Additional studios provide audio post-production services, including sitcom sweetening, ADR, telecine, mag transfers, 1", 3/4", 1/2" video, scoring-to-picture, hard disk recording and sampling.

[24+] **MEDIA ARTS CENTER/NICKEL RECORDS**, also **REMOTE RECORDING**; 753 Capitol Ave.; Hartford, CT 06106; (203) 951-8175. Owner: Jack Stang. Manager: Jon Bolduc.

[24+] **MEGAPHONE**, also **REMOTE RECORDING**; Stes. 200/300, 45 Casco St.; Portland, ME 04101; (207) 772-1222. Owner: Megaphone. Manager: John Etrier. Engineers: John Etrier, John Stuart, Martin Gleitsman, Michael McInnis. Dimensions: Room 1: studio 32 x 17, control room 20 x 25. Room 2: studio 24 x 15, control room 8 x 10. Synthesizer control room 12 x 10. Mixing Consoles: Sound Workshop Series 34B 40 x 24 w/Diskmix II computer automation, Tangent 3216A 12 x 16, Ramsa WR-8118 18 x 4. Audio Recorders: Otari MTR-90II 24-track w/autolocator, Otari MX-70 16-track w/autolocator, Otari 7800 8-track, Otari MTR-12 2-track mastering deck w/C-T SMPTE, Sony PCD-D10 DAT, Sony PCM-F1 2-track

digital, (6) Otari 5050 2-track, Otari 5050 4-track. Cassette Recorders/Duplicators: (4) Tascam 122B, Ken A Bacon Associates cassette duplication system, Sony TC-D5 Pro II portable. Noise Reduction Equipment: dbx, Dolby Synchronization Systems: (2) Fostex 4030/4035 SMPTE synchronizer. Echo, Reverb & Delay Systems: Lexicon 480L digital effects processor, AKG ADR-68K digital FX processor, (2) Yamaha REV7 digital reverb, (2) Yamaha SPX90 effects unit, Lexicon PCM60 digital reverb, ART 01A (Rev 2.4) digital reverb, Eventide 969 Harmonizer, Lexicon PCM42 digital delay, Korg SDD-2000 MIDI sampling digital delay, Loft 440 delay, Marshall Time Modulator. Other Outboard Equipment: Teltronix LA-2A limiter, (2) Aphex Compellor, (2) dbx 160 limiter, Valley People Dyna-Mite, Valley People 610 limiter, (2) Inovonics 210 limiter, Orban 536A dynamic sibilance controller, Aphex C Exciter, EXR SP1 exciter, Orban 674A paragrahic equalizers. Microphones: Sony C-37A tube, AKG tube, (2) B&K 4006, (2) Neumann U87, (2) AKG 414, (2) Crown PZM, (3) Neumann KM84, (3) AKG 451, (2) Countryman Isomax and more. Monitor Amplifiers: (2) Bryston 4B Pro, Yamaha PC2002M, (2) Crown D-150A Monitor Speakers: (2) UREI 813B, (2) JBL 4411, (4) Yamaha NS-10, (4) Auratone 5C, (2) Boston Acoustics 150. Musical Instruments: Steinway 1926 grand piano, Kurzweil 250 sampling synth, Akai S900 sampling synthesizer, Oberheim DPX-1 MIDI sample player, Yamaha DX7 synth w/EI mod, Yamaha TX802 synth, (2) Yamaha TX81Z synths, Roland MKS-20 digital piano, Roland MKS-70 Super JX, Roland JX-8P, Hammond organ w/Leslie. Other MIDI Equipment: Macintosh Plus w/30MB hard drive w/Professional Composer, Total Music, Performer, Sound Designer, Atari 1040ST computer w/Dr T's and more, (2) Roland SBX-80 SMPTE/MIDI controller, Southworth Jam Box/4+ Video Equipment: JVC CR-8250U 3/4" video deck, (2) Fostex 4030/4035 SMPTE synchronizer, Jensen 25" monitor in control room A, Amdek color monitor. Other: Production music and sound effects on CD and LP by Firstcom, Emil Ascher, DeWolfe, APM, Valentino, Major, BBC, Hanna-Barbera, Elektra and more. Rates: On application.

[24+] **MINOT SOUND STUDIOS, INC.**; 19 S. Broadway; White Plains, NY 10601; (914) 428-8080. Owner: Thomas Cimilio. Manager: Thomas Cimilio.

[24+] **MISSION CONTROL**; 7 Carl Thompson Rd.; Westford, MA 01886; (617) 692-6466. Owner: Michael Jonzun. Manager: Karen Erdos.

[24+] **MODERN AUDIO PRODUCTIONS**, also **REMOTE RECORDING**; 1600 Market St., 33rd Floor, Philadelphia, PA 19103; (215) 569-1600. Owner: Carlton Communications. Manager: Barbara Montgomery. Engineers: Bob Schachner, Paul Byers, Jack Dyke. Mixing Consoles: Soundcraft TS 24 28 x 24 automated, Soundcraft TS 24 8 x 24 automated, Soundcraft 200 8 x 4 Audio Recorders: MCI JH-24 24-track, Tascam Model 50 8-track, (2) Otari MTR-12 3-track w/center-track, (7) Otari 5050 2-track. Cassette Recorders/Duplicators: (4) Aiwa F770, (2) Aiwa AD-515 Noise Reduction Equipment: (28) Dolby A, (8) dbx I. Synchronization Systems: Boss automated editor w/(3) Adams-Smith synchronizer, Adams-Smith compact controller w/(3) Adams-Smith synchronizer. Echo, Reverb & Delay Systems: Klark-Teknik DN780, Yamaha REV7, Yamaha SPX90, Lexicon PCM60, Alesis Microverb II, Lexicon Prime Time II, Eventide 969 Harmonizer. Other Outboard Equipment: (8) dbx 160 limiter, Drawmer 201 gate, (2) Valley People gate, (2) Valley People Gain Brain, Valley People de-esser, (2) Orban de-esser, GML 8200 parametric, (2) GML mic preamp, Microphones: (4) Neumann TLM170, (2) Neumann U87, (2) Neumann KM84, (2) B&K 4007, E-V RE20, (2) Sennheiser MD-421, Shure 57, AKG 422. Monitor Amplifiers: (9) Haller P-250. Monitor Speakers: (2) Klein & Hummel 092, (2) Yamaha NS-10, (2) ROR, (2) Fostex, (2) Sony Musical Instruments: Yamaha recording drums, various amps, Tokai baby grand piano. Other MIDI Equipment: Yamaha MSS11 MIDI/SMPTE synchronizer. Video Equipment: Complete post-production facility w/two 1" edit bays, AVA paint system, Bosch FSG-4000, Rank Cintel film-to-tape transfer, Montage picture editor plus full-service, high-speed 1/2" video duplication. Other: (2) Technics SL-P1200 CD player.

[24+] **NEVESSA PRODUCTION**, also **REMOTE RECORDING**; 1 Artist Rd.; Saugerties, NY 12477; (914) 679-8848. Owner: Chris Andersen. Manager: Pam Cross, Neil Davidson.

[24+] **NEW ENGLAND MOBILE RECORDING**, also **REMOTE RECORDING**; PO Box 409, Slow, MA 01775; (508) 562-2111. Owner: Alan W. Goodrich. Manager: Jay W. Goodrich.

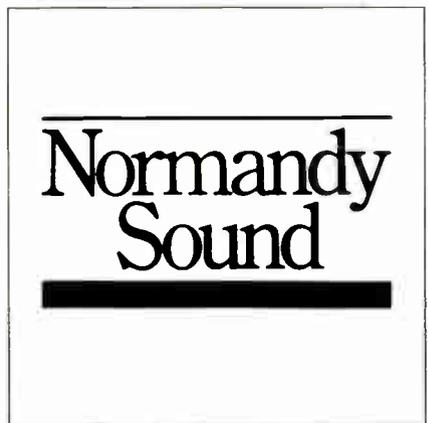
[24+] **NEW ENGLAND SOUND**; PO Box 75; Medfield, MA 02052; (800) FAT-TRAX; (617) 265-0201. Engineers: Chris Johnson, Bryan Cellin, John McManus. Mixing Consoles: TAC Matchless 28 x 24 x 8 w/8 aux sends per channel, 70 inputs in mix mode. Audio Recorders: Sony/MCI JH-24 24-track w/ALLI autolocator, Sony 2500A R-DAT digital, Otari MX-5050 2-track, 3M M56 2-track, Tascam 52 2-track. Cassette Recorders/Duplicators: (10) Nakamichi MR-2B. Echo, Reverb & Delay Systems: Lexicon PCM60, (2) Yamaha SPX90, Yamaha REV7, Alesis MIDIVERB, (2) Efectron 1024 DDL, Korg SDD-2000 MIDI DDL, DeltaLab DL-6 harmonizer. Other Outboard Equipment: (2) UREI 1176L, (2) Allison Research Gain Brain, (2) Ashly SC50, (3) dbx 163X, dbx 160, Aphex Compellor, Loft 400 4-channel gate/limiter, Allison Research Kepex, GateX

4-channel noise gate, (2) Ashly SC33, Aphex Aural Exciter. Microphones: Neumann U87, AKG 414, AKG D-12E, (2) AKG 451, (5) Sennheiser 421, (2) E-V PL95, (5) Shure SM57, Beyer M-500. Monitor Amplifiers: (2) Yamaha M50, Carver PM 1.5, Crown DC-60, Eddor headphone. Monitor Speakers: UREI 809 Time Aligned, Yamaha NS-10M, Auratone 5C, JBL 4311. Other MIDI Equipment: Apple Macintosh SE w/50MB hard drive, Imagewriter II printer, Mark of the Unicorn Performer and Composer, E-mu Emax SE sampling keyboard, Yamaha TX81Z digital module, Oberheim Matrix-1000 analog module, Opcode Mac interface, Sonus 8 x 2 MIDI switcher. Other: (3) Countryman direct box, (3) Kelsey direct box, Whirlwind direct box, Fostex, Koss and Realistic headphones. Rates: \$30 per hour. \$1,500 5-day lockout (60 hours). Specialization & Credits: In-house real-time cassette duplication direct from digital to Nakamichi MR-ZB. Recent projects: Former Foghat vocalist Lonesome Dave Pevert locked out 8 weeks to work on new material; Rick Berlin was in recording 11 songs live to 2-track; Joey Pesce (ex "Til Tuesday) completed mixes on two new songs; Johnny Angel and the Black Jacks working on their upcoming EP, Social Animals finished a song for an upcoming MCA film *Cannonball III*. Other projects include XNtrix LP, Fantasia single, Rob Werner, John Seppala, Kids That Lived, Greg Catanzaro. Direction: From record buyer demographics to major label artist rosters, we will help you target your goals and achieve them. Let us analyze the competition and design a production package that will have record and management companies hearing you at your best. Having a hard time getting heard? Our in-house real-time cassette duplication service will make your presentation tapes look as good as they sound. For more information call us.

[24+] **NEW MUSIC STUDIOS**; PO Box 243; Agawam, MA 01001; (413) 789-2264. Owner: Kid Kirk Productions. Manager: Ask for Susan or Kirk. Engineers: Kirk Cirillo, Gary Maziarz, Bill Ryan, Mark Schunk. Dimensions: Room 1: studio 25 x 30, control room 18 x 20. Room 2: studio 4 x 10. Mixing Consoles: Soundcraft TS-12 44 x 24 w/full bay and automation, over 88 lines in remix w/EQ and sends. Audio Recorders: Otari MX-80 24-track, Otari MX-5050II 2-track, Studer 2-track 1/4", Otari MTR-10 2-track w/center-track time code. Cassette Recorders/Duplicators: (4) Nakamichi MR-2. Noise Reduction Equipment: (28) dbx 901, (2) Dolby SR 2-track. Synchronization Systems: Adams-Smith Zeta-3 w/MIDI-SMPTE lock, lockup to U-matic or second recorder for 48-track audio, Mac Plus w/20MB hard drive. Echo, Reverb & Delay Systems: Lexicon 224X, Lexicon PCM70 V. 4.0, Lexicon PCM60 V. 2.0, Yamaha SPX90II, (2) Yamaha REV7, Eventide 3000. Other Outboard Equipment: (2) UREI 1176LN, (2) UREI LA-4, (2) TC Electronic 2240, Lexicon PCM42, Audio Digital TC-2 delay, Valley People Dyna-Mite, (8) USAudio GateX, dbx 160X, (4) Audioarts compressor/limiter, Eventide 3000 Harmonizer, overnight equipment rentals available. Microphones: Neumann U87, Neumann U89, Neumann U47, Neumann KM84, AKG C-414, AKG D-112, AKG 451, AKG 460, Sennheiser 421, Sennheiser 441, E-V PL20, E-V PL10, Crown PCC160, Shure SM57, Shure SM58, AKG "The Tube," Beyer M88, Beyer M69, API, Boulder and Jensen mic-pres. Monitor Amplifiers: (2) Haller 500, (4) Yamaha 2250, Bryston 4B. Monitor Speakers: JBL 4430, Yamaha NS-10, Westlake, ADS L300. Musical Instruments: Emulator II+, Yamaha DX7, Yamaha TX816, Ensoniq ESQ-1, Memorymoog Plus, E-mu Emax, Yamaha DX5, Mini-moog, E-mu SP-12 turbo, Roland Jazz Chorus 2 x 12 amp, Mesa/Boogie MkIII, Yamaha studio drum recording kit 7-pc., Kawai 5'2" grand piano, Kawai K3M, Roland D-50, Roland Super JX-10, Roland GP-8, Yamaha TX802, E-mu SP-1200. Other MIDI Equipment: Yamaha MCJ8 MIDI programmable patch bay, Roland Octapad, (10) Drastic Plastic MIDI drum trigger, Adams-Smith Zeta-3, Yamaha G10C MIDI guitar. Video Equipment: JVC C8250U 3/4" w/ SMPTE lockup, Sony 1/2" VCR and color monitor, Adams-Smith Zeta-3, Otari MTR-10 2-track w/center time code. Other: Mac Plus computer w/Digital Design Sound Designer for Emulator II+, Mark of the Unicorn Performer, Blank software for the SP-12 turbo, Opcode librarian for Yamaha DX7, complete sound and sample libraries (very extensive), private phone lines with access to Pan or CompuServe, kitchen, lounge. Starting independent record label in fall '89. Rates: Please call for brochure. Private in-house production for producer/composer Kirk Cirillo. Limited access for original acts seeking record deals.

[24+] **NEWBURY SOUND, INC.**; 1260 Boylston St., Ste. 202; Boston, MA 02215; (617) 267-4095. Owner: Ken Kanavos. Manager: Ken Kanavos. Engineers: Bob Reardon, Dave Van Slyke, Drew Townsend, Jeff Downer, Brenda Ferry, Jason Vogel. Dimensions: Studio 44 x 32, control room 22 x 20 w/6 ORF-1925 RPG Diffusers, (15) ASC tube traps and three large iso booths. Mixing Consoles: Harrison MR-4 30 x 24 automated w/Digital Creations Diskmix/IBM XT computer storage system, Soundcraft Series 200 16 x 4. Audio Recorders: Otari MTR-90II 24-track w/autolocator, Studer A820 2-track 1/2", Otari MX-5050B 2-track 1/4", TEAC 32-2B 2-track 1/4", Tascam 38 8-track 1/2". Sony 601 2-track digital. Cassette Recorders/Duplicators: (10) Nakamichi MR-2, Nakamichi MR-1, Onkyo TA-2600, Tandberg 3014, Tascam 122B, Aiwa F770, Aiwa F990. Synchronization Systems: Adams-Smith 2600 3-channel w/SMPTE generator. Echo, Reverb & Delay Systems: Lexicon 224XL digital reverb/effects processor, Eventide SP-2016 digital reverb/effects processor w/sampling, (3) Lexicon PCM70 digital reverb/effects processor w/MIDI interface, (3) Yamaha SPX90 digital reverb/effects processor, Lexicon Prime Time II digital delay, Lexicon PCM42 digital delay, (2)

Lexicon PCM41 digital delay. Other Outboard Equipment: (3) UREI LA-4 compressor, (2) UREI LA-3 compressor, (2) UREI 1176LN peak limiter, (2) dbx 160 compressor, (2) Ashly SC50 compressor, dbx 1C1 compressor, (6) Ashly SC33 2-channel noise gate, Omni Craft GT-4 4-channel noise gate, (2) MXR 129 pitch transposer w/digital display, MXR 174 pitch-shift/doubler, Aphex B Aural Exciter, EXRSPII exciter, Orban 622B 2-channel parametric EQ, UREI 527A 1/2-octave EQ, Orban 536A de-esser, Master Room XL-305 reverb, Valley People Dyna-Mite processor, (2) Ashly SC66 1/2 parametric EQ, Drawer DS201X noise gate, BBE 802 sonic processor, Aphex 303 Compellor signal processor. Microphones: (3) Neumann U87, Neumann U89, Neumann TLM170, (2) Neumann KM84, (2) Sennheiser MD-441, (2) Sennheiser MD-421, AKG 414EB, AKG 451, AKG D-12, AKG D-222, (5) Shure SM57, (2) E-V RE20, Crown 6LP PZM, (2) Beyer M300, (2) Beyer M500, (2) Altec C71. Monitor Amplifiers: (2) Crown MT1000 Micro-Tech, (2) Crown DC-300, (2) Crown D-150. Monitor Speakers: Realistic Minimus, UREI 813B w/JBL 5549 1/2-octave EQ, Altec 604-8K, Tannoy LGM12B, JBL 4312, Yamaha NS-10, Auratone 5C. Musical Instruments: Roland D-550 linear synth, Tama 5-piece drum kit w/Zildjian cymbals, Fender Twin Reverb amp, Fender Rhodes "Stage 73" piano, Hammond L100 organ w/Leslie 122 speaker, Yamaha KX88 keyboard controller, Yamaha TX synth rack, Roland MKS-20 digital piano, E-mu SP-12 drum machine, LinnDrum machine w/MIDI, Moog Memorymoog Plus w/MIDI and sequencer, Roland Juno-106 w/MIDI, Roland SBX-80 SMPTE/ MIDI sync box, Emulator II synth w/library, Kawai KG-3C 6' grand piano. Other MIDI Equipment: Performer 2.3, Macintosh computer sequencer, Akai S900 digital sampler w/library, (2) J.L. Cooper MSB Plus MIDI switcher. Video Equipment: NEC PM-2571A 25" color video monitors, JVC 8250 3/4" VCR, JVC HR-D140U 1/2" VCR, Fostex E2 1/4" center-track time code mastering deck, Otari MX-70 1" audio layback deck. Other: Countryman D.I. boxes, Sescorm D.I. boxes, AKG headphones, Fostex headphones, Technics SL-B205 turntable, NAD 1020 preamp, Pioneer PD-6030 CD player. Rates: Please call for rates.



**NORMANDY SOUND, INC.**  
Warren, RI

[24+] **NORMANDY SOUND, INC.**; 25 Market St.; Warren, RI 02885; (401) 247-0218. See our Ad in the *BusinessPages!* Owner: Phil Greene, Ralph Petrarca, Ogden Fell. Manager: Ralph Petrarca. Engineers: Phil Greene, Tom Soares, Bob Winsor. Dimensions: Studio 40 x 25, control room 20 x 15. Mixing Consoles: SSL 4000E w/Total Recall. Audio Recorders: (2) MCI JH-24 24-track, Studer A80 2-track 1/2", Studer A80 2-track 1/4", Scully 280B 2-track 1/4", Sony PCM-2500 DAT. Cassette Recorders/Duplicators: (3) Tascam 122. Synchronization Systems: (2) TimeLine Lynx synchronization module. Echo, Reverb & Delay Systems: AMS 1580, AMS RMX 16, Lexicon 224X, acoustic chamber, EMT 140S, Lexicon PCM70, Lexicon PCM60, Lexicon PCM42, Lexicon Prime Time, Eventide 949H Harmonizer, (2) Yamaha SPX90, ADR Panscan, (2) Loft delay line flanger, Korg SDE-3000, DeltaLab CE-1700 CompuEffectron, DeltaLab 1024 Effectron, MXR auto flanger, MXR auto phaser, Aphex stereo Aural Exciter, TC Electronic 2290 delay sampler. Other Outboard Equipment: (4) Focusrite ISA-110 EQ/mic preamp, (6) Bolder-Dean Jensen twin servo mic pre, Teletronix LA-2A, (2) UREI 1176LN, (2) UREI LA-4, UREI LA-3, Pultec EQP-1A, Tubetech PE-1A, (2) Ashly SC50, Ashly SC66 stereo parametric EQ, (2) Valley People Dyna-Mite, Aphex Compellor, (2) Kepex Gain Brain, (2) MXR mini limiter, (3) Orban de-esser, (2) Ashly SC33 stereo noise gate, (5) Roger Mayer noise gate, (40) SSL noise gate expander, (40) SSL compressor/limiter, BBE 802. Microphones: AKG C-12 (tube), AKG C-12A (tube), Neumann M49 tube, (2) Neumann U47 tube, (3) Neumann U87, (3) Neumann KM84, (2) AKG 414EB, (3) AKG C-451, (2) Sony C500, Sony C37, (2) Schoeps Telefunken CM65 tube, (2) AKG D-12, (5) Sennheiser MD-441, (5) Sennheiser 421, (2) Sennheiser MD-211, Beyer 160, (2) Beyer 88, Shure SM56, (2) Shure SM57, (2) Shure SM58, Shure SM53, Shure SM81, Shure SM7, E-V RE11, E-V DS35, (3) Crown PZM. Monitor Amplifiers: McIntosh, Ashly, Crown, QSC. Monitor Speakers: Custom UREI 813, UREI 813, Yamaha NS-10M studios, Aural

tone Supercubes. Musical Instruments: Yamaha C5 6'8" conservatory grand piano, Fender 1960 Stratocaster, Fender 1968 Precision bass, Oberheim DX drum machine, Seymour Duncan guitar amp, Scherzle Rockman sustainer, Yamaha acoustic guitar, Roland D-50. Rates: On request. Specialization & Credits: Specializing in national and international multi-track recording and mixing for the record, film soundtrack, and live radio broadcast industry. Seaside retreat location near Providence, Newport and Boston. Complimentary accommodations for up to six persons in full-efficiency apartment.



**NORTHEASTERN DIGITAL RECORDING, INC.**  
Shrewsbury, MA

[24+] **NORTHEASTERN DIGITAL RECORDING, INC.**; only REMOTE RECORDING; 12 Sadler Ave.; Shrewsbury, MA 01545; (508) 753-1192. Owner: Dr. Toby Mountain. Manager: Tracy Crane. Engineers: Toby Mountain, Jonathan Wyner. Mixing Consoles: Troisi SA200 custom 12 x 4. Audio Recorders: Sony PCM-3324 24-track digital (on request), Sony PCM-1630 2-track digital, Sony PCM-1610 2-track digital, Sony PCM-701 2-track digital, Sony PCM-501 2-track digital, Sony PCM-F1 2-track digital, Sony DTC-1000, Sony PCM-2500 DAT, Sony APR-5002H 2-track 1/2" or 1/4" (analog) Cassette Recorders/Duplicators: (3) Denon. Noise Reduction Equipment: Dolby A, Dolby SR, dbx Type I, dbx Type II. Synchronization Systems: Sony DAE-1100 digital audio editor, Echo, Reverb & Delay Systems: Lexicon PCM70, Lexicon 480. Microphones: Schoeps, B&K, AKG 414, Sennheiser. Monitor Speakers: Snel Type C. Musical Instruments: Yamaha DX7-II/IFD, Roland D-50, Alesis HR-16 drum machine. Other MIDI Equipment: Macintosh Plus computer, Performer and Composer software. Video Equipment: (2) Sony BVU-800 for digital audio or video, (2) Sony DMR-4000 for digital audio. Specialization & Credits: We specialize in live-to-2-track digital using the Sony PCM-1610/30 system (Also PCM-F1, etc.) We do transfers from several other digital formats as well as analog to the PCM-1610/30 for digital editing and compact disc mastering. Full compact disc services also available. Credits: Frank Zappa, Richie Havens, Arlo Guthrie, Kingston Trio, Rykodisc, Rounder, Folk Era, MHS, Biograph, Chrysalis, RCA, Newport Classic.



**OMEGA RECORDING STUDIOS**  
Rockville, MD

[24+] **OMEGA RECORDING STUDIOS**; also REMOTE RECORDING; 5609 Fishers Ln.; Rockville, MD 20852; (301) 230-9100. Owner: Bob Yesbek. Manager: Bill Brady. Engineers: Bob Yesbek, Bill Brady, Sharon Shapiro, Jack Knepley, Tom McCarthy, Brian Smith, Chris Murphy, Andy Evans, Chuck Lamb. Dimensions: Room 1: studio 50 x 40 x 18, control room 24 x 27. Room 2: studio 26 x 25 x 12, control room 23 x 19. —CONTINUED ON NEXT PAGE

# N O R T H E A S T 24+ TRACK STUDIOS

—CONTINUED FROM PREVIOUS PAGE

Room 3: studio 22 x 20 x 9, control room 20 x 15. Room 4: 27 x 27 (MIDI room) Mixing Consoles: API 2488 32 x 32, MCI JH-636 28 x 24, Audioronics 110B 24 x 8 x 16. Audio Recorders: (2) Studer A80 MkIV 24-track, (2) Studer A80 2-track ½", (6) Studer B67 2-track, (2) Studer A810 2-track, MCI JH-110B 4-track ¼", Ampex A800 4-track ½", MCI JH-24 16/24-track, (3) Sony PCM-2500 digital recorder, Dyaxis digital disc recorder w/one-hour capability, Echo, Reverb & Delay Systems: EMT 251, EMT 140ST, EMT 240, (4) Lexicon PCM70, (2) Yamaha REV7, (4) Lexicon Prime Time, (3) Eventide Harmonizer, DeltaLab DL1, DeltaLab Acoustic Computer, (4) DeltaLab Effectron II, Lexicon 224, (2) AKG BX20E, (9) Yamaha SPX90. Other Outboard Equipment: (15) UREI limiter/compressor, Sontec parametrics and compressors, Neve EQs and compressor/limiters, (8) Allison Kexep, (8) Allison Gain Brain, Audioarts parametric, Panscan, Pultec EQs, Orban EQs, Dolby A 48 tracks, dbx 216 24 tracks, Eventide phaser/flanger, API 550, dbx 160, dbx 162, Alembic preamps, (2) UREI digital metronome, (8) Drawmer gate, dbx "Boom Box" Microphones: (18) Neumann U87, (4) Neumann 47 FET, (8) Sennheiser 421, (2) AKG 451, Neumann KM85, Neumann KM84, Neumann KM83, (4) Neumann KM86, (2) Neumann U47 tube, Neumann U67 tube, (11) Neumann RE20, (4) Crown PZM, Sony ECM-55ps, Shure, E-V, (4) AKG 414, AKG tube mic, (2) Sony C-48, (2) Neumann U89. Monitor Amplifiers: Bryston, AB Systems, Crown. Monitor Speakers: Westlake TM1, UREI 813, UREI 811, Ed Long MDM-4, Yamaha NS-10, Visonik David 9000, Auratone. Musical Instruments: Emulator II, Yamaha DX7, MIDibass, computer link to Emulator, Steinway B grand piano, Kawai grand, Hammond B-3 w/Leslie, Fender Rhodes piano, clavichord, (2) Yamaha drum set, (2) sets of congas (LP and GonBon), Marshall guitar amps, Fender guitar amps, Music Man guitar amps, Yamaha marching drums (full set), Yamaha guitar amp, Fender Bandmaster amp, various and sundry percussion, (2) Akai S900, Synclavier, Kurzweil, Sequential Circuits Prophet-2000, Roland D-50, Roland Juno, (2) Yamaha TX7, Yamaha CX5, (2) Yamaha TX812, Macintosh w/ Southworth Jam Box/4", IBM computers w/latest Sequencer Plus, (2) Roland TR-707, Korg DW-8000, Korg Poly-800, (2) Roland Octapad, Oberheim Matrix-6R, (2) J.L. Cooper MSB-16/20 MIDI patcher, 360 Systems MIDI patcher, Oberheim Matrix-12, Yamaha TX802, Oberheim DXP-1, Roland D-550, Roland SBX-80, Mac II computer w/380MB HD, Dyaxis digital recorder/editor w/one-hour capability. Video Equipment: Eclipse synchronizer, Sony 5850 ¾" recorders, color monitors built into control rooms, video links between all studios and control rooms. Rates: Room 1: \$120/hr., room 2 \$105/hr., room 3 \$75/hr., room 4 \$75/hr. Package rates available. Video interlock in rooms 1 or 2. \$140/hr. Specialization & Credits: Each control room and each studio separately air cond. and heated. Electrostatic air cleaners in all rooms, 48-line building-wide telnet system for audio and video, various music and SFX records and tapes available in music library and two lounges. Producer's office in control room #1. Omega Studios' huge studio #1 is for concert bands, marching bands, stage bands, choirs and orchestras of up to 100 pieces. Omega control #1 features a 10' producer/client desk and a private producer's office. Capable of 48-inputs. #1 is equipped for up to 48 tracks. Studio #2 offers 24 tracks. Grand pianos are available in both studios, as well as Yamaha DX7s and Emulator IIs. Studio #3 offers 24 inputs and 2/4/8-track production. SFX and music libraries are available on CD, record and tape. Studio #4 is MIDI-based and features a Macintosh w/380MB hard disk and an IBM computer. Digital editing is available using the Dyaxis direct-to-disk system featuring one-hour recording capability and direct-to-digital connection to the Sony PCM-2500s. Instruments include synthesizers listed under "Musical Instruments" section. Videolock to MIDI. Studio #4 is wired to dump MIDI and up to 48 channels of audio to Studios 1, 2 or 3. Omega's Recording Engineering School, now in its 12th year, offers six levels of training and is approved by the Maryland State Board for higher education and veteran's training. Omega Studios is celebrating its 21st year in business in 1989.

[24+] **ON BROADWAY, INC.**: 1123 Broadway, New York, NY 10010, (212) 627-9600. Owner: Robert Gordon, Nicky Kalliongis. Manager: Robert Gordon, Nicky Kalliongis

[24+] **P&P STUDIOS, INC.**: 109 Forest St., Stamford, CT 06901; (203) 359-9292. Owner: John Fishback. Manager: Aldena Leonard

[24+] **PARIS RECORDING**, 466 Hawkins Ave., Lk. Ronkonkoma, NY 11779; (516) 467-5143. Owner: Brian Unger. Manager: Diana Perez

[24+] **PCI RECORDING**, also *REMOTE RECORDING*; 737 Atlantic Ave., Rochester, NY 14609, (716) 288-5620. Owner: Theodore Hummel. Manager: David Pinkston. Engineers: Tom

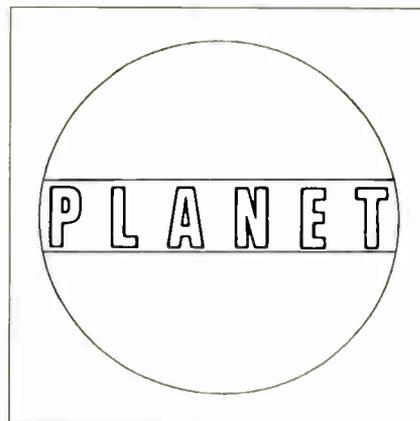
Backus, Steve Forney, Don Fiegel, Jeff Corcoran, Todd Schaffer, Dave Pinkston. Dimensions: Room 1: studio 15 x 30, control room 15 x 20. Room 2: studio 70 x 100, control room 15 x 20. Room 3: studio 10 x 20, control room 10 x 30. Room 4: studio 20 x 20, control room 40 x 30. Mixing Consoles: Sony MXP-3036 36 x 24, NEOTEK 32 x 24, Amek TAC Matchless 26 x 24. Audio Recorders: (3) MCI JH-24 24-track, (2) Sony APR-5003 3-track, Sony 3402 Dash 2-track, Ampex ART-102 2-track. Cassette Recorders/Duplicators: (10) NAD. Noise Reduction Equipment: (24) Telcom NR multitrack unit, (2) Telcom NR 2-track unit. Synchronization Systems: Adams-Smith 2600 synchronizer, Adams-Smith Zeta-3 Echo, Reverb & Delay Systems: Lexicon 224XL, AMS DMX 15-80S, Klark-Teknik DN780, EMT 140 plate, Lexicon Prime Time, Yamaha REV7. Other Outboard Equipment: (3) UREI 1176Lm lim/comp, dbx 900 rack, (4) Ashly Audio noise gate, (2) dbx 160 lim/comp, (2) dbx 166 lim/comp, Ashly Audio SC66 parametric EQ, UREI LA-4 lim/comp, ADR F796XR vocal stresser. Microphones: (4) Neumann U67, Neumann U87, Neumann U47, (2) AKG 414, (2) AKG 412, (2) Crown PZM, (10) AKG 451, Schoeps CMT565, (6) Shure SM57, (3) AKG 441, (6) AKG 421. Monitor Amplifiers: (2) SCS MOSFET 500, Ashly Audio FET 500, Ashly Audio FET 200. Monitor Speakers: Tannoy 10, Yamaha NS-10M, Visonik David 7000, Genelec, JBL 4350. Musical Instruments: Steinway 9' grand piano, Gretsch rosewood drum set, Emulator II+. Video Equipment: (2) Ampex VPR-3 Type C 1" machine, (4) Ampex VPR-6 Type C 1" machine, (4) Sony BVU-820 ¾" machine, (3) Pallex system interformat editing suite. Other: Dubner CBG animation computer, Ampex AVA-3 paint box, Ampex Cubicom 3-D animation computer, (2) Sony D-2 digital video machine, Ampex VPR-5 1" location recorder. Rates: Call for rates.

[24+] **PEABODY RECORDING STUDIOS**, also *REMOTE RECORDING*; 1 E. Mt. Vernon Pl., Baltimore, MD 21202; (301) 659-8136. Owner: Peabody Institute of the Johns Hopkins University. Manager: Alan P. Kefauver. Dimensions: Room 1: studio 20 x 32, control room 12 x 20. Room 2: 450-seat hall, control room 15 x 20. Mixing Consoles: Room 1: Sony MXP-3036UF w/hard disk automation. Room 2: Sound Workshop Series 300. Audio Recorders: Ampex MM1200 24-track, Ampex ATR-104 4-track, (4) Ampex ATR-102 2-track, Studer A820 2-track, (2) Sony PCM-2500 DAT, Sony PCM-701ES 2-track digital, Sony VO-5850, Dyaxis digital recorder/editor. Cassette Recorders/Duplicators: Tascam 122, Nakamichi MR-1. Noise Reduction Equipment: dbx I, 36 channels total. Echo, Reverb & Delay Systems: Lexicon 480L, Lexicon 224, Lexicon 200, Klark-Teknik DN780, Eventide Harmonizer, Lexicon PCM42, Yamaha SPX90II, Drawmer M500. Other Outboard Equipment: (4) UREI LA-4 compressor, (2) UREI 1178 limiter, UREI 546 equalizer, UREI 5651 fillers, MICMIX Dynaflex, Lang PEO-2A EQs, UREI EQ, dbx 900 series EQs and compressor, Drawmer noise gate, dbx 900 series noise gate, Drawmer dynamics processor, Dyaxis digital workstation. Microphones: Neumann KM84, Neumann KM83, Neumann KM86, Neumann U87, Neumann KM88, Neumann U67, Neumann SM69, AKG 414EB/P48, AKG 422, Milab DC-63, Beyer M500, Beyer M160, Beyer M260, Beyer M101, Beyer M201, E-V dynamics, Shure dynamics, AKG dynamics, Sennheiser MKH-40, Sennheiser MKH20, Brooke-Siren direct boxes, UREI direct boxes and more. Monitor Amplifiers: UREI, JBL, SAE, Bryston. Monitor Speakers: JBL 4430, UREI 811, Tannoy NFMB, Polk SDA. Musical Instruments: Steinway 9' concert grand, Steinway 7' concert grand, other instruments and devices on request. A separate electronic music studio is on the premises. Rates: Call for rates. Specialization & Credits: Studio #1 is tied to a 750-seat concert hall with a stage suitable for a 100-piece orchestra, and is available for a nominal charge. A full duplicating facility is also on premises. The Peabody Recording Studios is a classically oriented full-service studio serving the needs of The Peabody Conservatory of Music and the surrounding community and is a laboratory for the students in Peabody's Bachelor of Recording Arts & Sciences degree program. Call for brochure and further information.

[24+] **PENNY LANE**, also *REMOTE RECORDING*; 1350 Avenue of the Americas, New York, NY 10019; (212) 687-4800. Owner: Harley Flaum. Manager: Alan Varner

[24+] **PHOTOMAGNETIC SOUND STUDIOS**; 222 E. 44th St., New York, NY 10017; (212) 687-9030. Manager: Beverly Dichter

[24+] **PLANET AUDIO-VIDEO RECORDING STUDIOS**; 251 W. 30th St., New York, NY 10001; (212) 594-7554. Owner: Jon Grossbard, Mike Theodore, Gnome Prods. Manager: John Grossbard. Engineers: Mike Theodore, Bruce Nazarian, Julian McBrowne, Andy Heermans, Tim Cox, Tim Purvis, Steve Stable. Dimensions: Room 1: control room 50 x 27 w/15 x 10 iso booth. Room 2: program/control room 30 x 18 w/9 x 6 voiceover booth. Room 3: studio 24 x 45, control room 18 x 23 w/iso booths. Mixing Consoles: MCI 500 w/automation, Soundcraft TS 24 w/64 mic inputs. Audio Recorders: Otari MTR-90 24-track, MCI 24 24-track, Studer 2-track ½", Otari 2-track ½", Ampex 4-track, Mitsubishi X-850 32-track digital, Mitsubishi X-80 2-track digital Synclavier direct to disk (see synth). Cassette Recorders/Duplicators: Tascam, TEAC, Hitachi. Synchronization Systems: Shadow and Lynx. Echo, Reverb & Delay Systems: Lexicon 224XL, Lexicon 200, Lexicon PCM70, Yamaha REV7, Yamaha SPX90, Roland SRV-2000, AMS DMX 15, AMS RMX 16, EMT stereo plate, Lexicon PCM42.



PLANET AUDIO-VIDEO RECORDING STUDIOS  
New York, NY

DeltaLab delays and reverbs, Eventide Harmonizers, AKG BX-20. Other Outboard Equipment: Panscans, dbx limiters, Kepex IIs, Gain Brain, Aphex Exciters and Compellor, Valley People Dyna-Mite. Microphones: Neumann, AKG, Sennheiser, E-V, Beyer, vintage solid state and tube mics. Monitor Amplifiers: Hafler, Crown. Monitor Speakers: UREI 813, Yamaha NS-10, Tannoy. Musical Instruments: Synclavier II (32-voice polyphonic) w/160MB, 200-track sequencing, Kurzweil 250, Yamaha DX7, Yamaha TX816, Yamaha TX216, Ensoniq Mirage, Emulator II+HD, PPG Wave 2.3, Sequential Circuits Prophet-1B, Akai sampler, Oberheim Xpanders, Roland Super Jupiter, Moog Minimoog, ARP 2600, Linn 9000, E-mu SP-12, DMX MIDI, Voyetra, Korg EX-800, (2) Roland D-550, Yamaha TX802. Other MIDI Equipment: Atari 1040ST computers w/Dr. T's sequencer, Mac and Performer sequencer, J.L. Cooper 16/20 controller. Video Equipment: JVC 6650 ¾", 25" color monitor, full SMPTE lockup. Other: Numerous MIDI devices and digital toys. Please call. Rates: Please call. Specialization & Credits: CBS-TV miniseries *At Mother's Request*, ABC-TV series *All My Children*, Island Records artist Millie Scott LP, NBC miniseries *In Love and War*, feature film *Long Lost Friend* starring Donald Sutherland; Atlantic Records artist Jimmy Relfon LP, Island Records artist Bernard Fowler LP, Polydor Records artist Gerry Woo 12" single, Island Records artist Tom Waits 12" remix, Warner Bros. Pictures feature film *Lost Boys* title tune "Cry Little Sister," artist Gerard McMahon, plus lots more.



PLATINUM ISLAND RECORDING STUDIOS  
New York, NY

[24+] **PLATINUM ISLAND RECORDING STUDIOS**; 676 Broadway, New York, NY 10012; (212) 473-9497; FAX: (212) 505-8277. Owner: RLK Enterprises, Inc. Manager: Richard Kessler. Engineers: Jerry Gottus, Mark Richardson, Jim Klein, Oz Fritz, Chris Savino, Ricky Bell, Jose Fernandez, Greg Wong. Dimensions: Room 1: studio 30 x 20, control room 20 x 21. Room 2: studio 18 x 14, control room 18 x 21. MIDI annex control room 20 x 15. Mixing Consoles: SSL 4000E (56-input frame) w/48 I/O modules, all w/G Series EQ, Amek Angela w/36 I/O modules, API 312 pres w/pad, phase and 48V, MCI 428. Audio Recorders: Studer A800 24-track, (2) Studer A80 24-track, MCI JH-24, (3) Studer A80 2-track ½", (2) Studer B67 2-track ¼", MCI JH-110 4-track ½", PCM-501 2-track digital, Sony DTC-1000 DAT, (2) Otari 5050BII 2-track ¼", Cassette Recorders/Duplicators: (4) Nakamichi MR-1, (2) Tascam 122B. Synchronization Systems: (2) TimeLine Lynx Echo, Reverb & Delay Systems: Lexicon 480L, (2) Lexicon 224XL w/LARC, AMS RMX 16, AMS 15-80 (6 4/6 4), EMT 140TS and Ecoplate reverb, (3) Yamaha REV7, (3) Yamaha SPX90, Lexicon PCM70, Lexicon Prime Time II, Eventide H949 Harmonizer, Eventide H910 Harmonizer, (5) Lexicon PCM42.

(3) Lexicon PCM41, (2) DeltaLab 1024, (2) Roland SRV-2000, Lexicon PCM60, MXR-01A, Korg SDD-2000, Ursal Major Space Station, (2) Lexicon LXP-1, MXR 01A, Other Outboard Equipment: (2) Pultec EQP-1A, Pultec EQP-1, (2) Pultec EQH-2, (2) Pultec MEQ-5, (16) API 550A, (2) API 560B graphic EQ, (2) Neve "Rush" 4-band EQ, UREI 537 graphic EQ, Yamaha 31-band stereo graphic EQ, (2) Orban parametric, (2) Orban parametric EQ, (8) API 312, (12) Drawmer N-201 gate, (4) Valley People Dyna-Mite, Teletrex LA-2A limiter, (3) Summit Audio TLA-100 tube limiter, (3) UREI 1176LN limiter, (4) dbx 160X limiter, (2) dbx 162 limiter, (2) Neve 2254/A limiter, Aphex Compellor, (4) UREI LA-4 limiter, Aphex Type C Aural Exciter, (2) Orban 536A de-esser. Microphones: (2) Neumann U47 tube, Neumann U48 tube, Neumann M249 tube, AKG "The Tube," (6) Neumann U87, (2) Neumann U47 FET, (4) AKG 414, (5) AKG 451EB, AKG D-12E, (6) Sennheiser 421, RCA 44-DX (ribbon), (2) RCA 77-DX (ribbon), Beyer M160 (ribbon), (4) Shure SM81, (6) Shure SM57, Shure SM58, (2) E-V RE20, E-V RE16. Monitor Amplifiers: Bryston 4B, Crown DC-150A, Crown DC-300, Harman Kardon Citation 16. Monitor Speakers: UREI 813B, Yamaha NS-10M, Auratone 5C, E-V Sentry 100, JBL Bi-Radials, UREI 809. Musical Instruments: Yamaha C77 4" grand piano, Young Chang 59" grand piano, Minimoog w/MIDI, Yamaha DX7, Roland Super Jupiter, Oberheim OB-8 (w/MIDI), Roland Juno-106, Roland D-50, Roland JX-3P, Casio CZ-101, E-mu SP-1200, LinnDrum, Roland TR-808, Emulator II, Akai S900, Tama Imperial Star 5-piece drum kit, Zildjian cymbals, Ampeg B-15 bass amp, Marshall 50-watt head 4 x 12 cabinet, Fender 200-watt Tweed, Leslie Rotating speaker, Roland Cube 100. Other MIDI Equipment: Roland SBX-80, Masterbeat, Mac SE w/20MB hard disk, Mac Plus w/Performer and hard disk, Atari ST w/Creator. Video Equipment: JVC 8250 edit-recorder, MCI JH-110 4-track 1/2", JVC and Sony monitors.

Drum, Simmons SDS7, Ludwig 5-piece drum kit, Oberheim OB-Xa, Music Man HD-130 Marshall 50, Marshall 100, Fender Vibroverb, Peavey Deuce, Yamaha 112, Oberheim Matrix-6. Video Equipment: Betacam 1" and 3/4" production and post-production, (4) Ampex VPR-2B, Sony BVU-800, Paltec Espirit, Sony RM-440, Sony RM-580, Grass Valley I-L switcher, 3M D-5000, Tektronix 528 Waveform, Tektronix 1420 Vectorscope. Rates: 100-hour block rate 24-track analog \$40/hour, 100-hour block rate 24-track digital \$85/hour, other block rates available upon request. Call for rate card.

## power play studios inc.

POWER PLAY STUDIOS  
Long Island, NY

[24+] **POWER PLAY STUDIOS**, 38-12 30th St./37-20 30th St.; Long Island, NY 11011; (718) 729-1780; (718) 729-9609. Owner: Tony Arfi. Manager: Jack Malken. Engineers: Patrick Adams, Ivan "Doc" Rodriguez, Norberto "Norty" Cotto, Elai Tubo, Bryn Martin, Duayne Sumal, Jeff Loid Alaza. Dimensions: Room 1: studio 24 x 40, control room 24 x 35. Room 2: studio 20 x 30, control room 16 x 20. Room 3: studio 20 x 15, control room 20 x 16. Mixing Consoles: SSL 4000E 48 x 48 w/Total Recall, MCI 636 automated 32 x 24, Trident Series 70 28 x 24. Audio Recorders: Studer A80 24-track, (2) Sony JH-24 24-track, (2) Sony APR-24, Sony PCM-3202 2-track digital, (5) MCI JH-110 2-track Bs and Cs, Tascam 80-8 8-track, TEAC 40-4 4-track, TEAC 3300SX, Sony APR-5003, (2) Sony PCM-2500 R-DAT. Cassette Recorders/Duplicators: (7) JVC KDU-6, Hitachi D-W800. Noise Reduction Equipment: (4) dbx 150. Synchronization Systems: Adams-Smith Echo, Reverb & Delay Systems: Publison Infernal Machine 90, Yamaha REV1, AMS DMX 15-80S, (3) Yamaha REV7, Lexicon 224XL w/LARC, Lexicon 200, (3) Lexicon PCM60, (6) Lexicon PCM42, Ursal Major Space Station, (2) MXR 01, (2) Eventide Harmonizer, AKG BX-10, (2) Lexicon PCM41, MXR 1500, AMS RMX 16, Lexicon PCM70, (6) Yamaha SPX90, SPX1000. Other Outboard Equipment: (2) MXR flanger/doubler, (3) TubeTech EQ, Orban parametric EQs, Panscan, (3) dbx 166, (2) dbx 165A, (4) dbx 160X, (12) Valley People Dyna-Mite, Klark-Teknik EQs, Drawmer gates, UREI 1176LN, (8) Neve 1066 EQ, Microphones: AKG Gold tube, Neumann U47, (4) AKG 414, (5) Neumann U87, (2) Neumann KM85, (3) Sony C-37P, (2) AKG 451, (2) AKG 452, AKG 535, Shure SM85, (2) Shure SM58, (2) Shure SM57, (3) E-V RE20, Crown PZM, (7) Sennheiser MD-421, Neumann U47 FET, (2) Sennheiser MD-441. Monitor Amplifiers: (3) Haller P-500, Haller P-225, Phase Linear 400, (3) Crown DC-300A, Yamaha P2050, Crown DC-60, SAE 50, Perreux 8000C, 6000. Monitor Speakers: (2) UREI 813B, (6) Yamaha NS-10M, (4) Auratone, JBL 4430, Big Red, JBL 4311, (2) UREI 813C, Tannoy FSMU, (2) pair LGM12, (2) pair 6.5. Musical Instruments: E-mu Emulator II, E-mu Emulator I, PPG Wave 2.2, (2) Yamaha DX7, Yamaha DX21, Yamaha TX816 rack (8 modules), Roland Juno-60 w/MIDI, Roland Juno 106, Casio CZ-101, Linn 9000, LinnDrum, DMX, DSX, RX-11, Roland DDR-30 drum computer, MX-1 trigger, Mini Doc, Oberheim OBX-8, Simmons set of drums/pads and brain, E-mu SP-12, Roland TR-727, MSQ-700, SBX-80, Yamaha grand piano, Yamaha stand-up, Wurliizer piano, Fender Rhodes 88, Voyetra 8, Roland D-50, Doctor Click 2, Akai S900, S1000 digital samplers, Roland D-550, (2) SP1200. Video Equipment: Available upon request. Other: Full percussion equipment, including congas, cowbells, tambourines, agogos, wood block, maracas, etc. Full drum set—acoustic or electronic. Rates: Available upon request. **Specialization & Credits:** Our studios were acoustically designed by Vin Gizzi assuring our clientele the most accurate monitoring environment available. In 1988, we at Power Play had 27 Billboard-charted hits, including two Number Ones. We have hosted such artists and record company's as: MCA, CBS, Atlantic, Chrysalis, A&M, Island, Manhatt, Warner Bros, Reggie Griffin, Heavy D & The Boyz, Skipwarth & Turner, Shannon, Rany Davis, Stanley Turrentine, Hanson & David, Plateau Records, Sleeping Bag Records, Profile Records, and many, many more.

[24+] **POWER STATION RECORDING, INC.**, 441 W. 53rd St., New York, NY 10019; (212) 246-2900. Owner: Bob Walters, Tony Bongiovi. Manager: Barry Bongiovi, Bari Kaye.

[24+] **PREMIER RECORDING, INC.**; 2121 Wisconsin Ave. NW, Ste. 250; Washington, DC 20007; (202) 333-5588; FAX: (202) 337-6928. Owner: Demos Chrissos. Manager: Lisa Giannini. Engineers: Demos Chrissos, Lisa Giannini, Matthew Nicholl. Dimensions: Studio 22 x 14, control room 26 x 21, MIDI room 16 x 11. Mixing Consoles: NEOTEK Elite 36 x 26, Yamaha M2404 [MIDI room]. Audio Recorders: Otari MTR-90II, Otari MTR-10 2-track, Otari MTR-10 2-track w/center-track time code, Otari MX-5050 MkIII-2 Cassette Recorders/Duplicators; Sony PCM-2500 R-DAT, Nakamichi MR-2B, Nakamichi B-100, Nakamichi B-1. Echo, Reverb & Delay Systems: Lexicon 200, Lexicon PCM70, Eventide H910, Yamaha SPX90 digital multieffects processor. Other Outboard Equipment: Drawmer DS-210 stereo noise gate, Aphex 300 stereo Compellor, Aphex Type C Aural Exciter, (4) UREI LA-4 compressor, (3) dbx 160C compressor/limiter, Symetrix Ti-101 telephone interface, (2) Symetrix 528 voice processor, Technics SL-P2 compact disc player, Dolby XP-24 Type A noise reduction, Music Man 210HD amplifier, (3) TimeLine Lynx synchronizer w/keyboard controller, VAC 100PA-2PC sync generator, Macintosh SE w/60MB HD/2MB RAM, Macintosh II w/60MB HD/2MB RAM. Microphones: Neumann U87, AKG C-414EB/P48. Monitor Amplifiers: UREI 6500, Crown D-75, Crown D-150A Series II (headphone amplifier), Crown PSA-II [MIDI room]. Monitor Speakers: Control room: UREI 813B, ROR E3; MIDI room: Tannoy PBM-8, ROR E3. Musical Instruments: Kurzweil 250 w/advanced sampling, Kurzweil 100PX Plus, Yamaha DX7IID, Yamaha DX7, (4) TX7 modules, (2) Akai/Linn MPC-60 drum machine/sampler, Dyaxis digital record/edit/mix, Roland JX-3P, Roland MIDI Octapads, Roland D-550, Roland P-1000 programmer, Roland Super Jupiter and programmer, E-mu Systems Emax-SE digital sampler, J.L. Cooper 16/20 MIDI junction box, Sony VO-5800 3/4" video cassette deck. Rates: Upon request. **Specialization & Credits:** Premier Recording is both a recording studio and award-winning in-house music production company. Specialization includes national music syndication, network promo ID packages, 24-track audio sweetening to picture, pre- and post-score to picture original music, jingles and spot/soundtrack record/edit/mix

[24+] **PRESENCE STUDIOS**; also **REMOTE RECORDING**; 461 Main St. R; East Haven, CT 06512; (203) 467-9038. Owner: Jon Russell. Manager: Jon Russell. Engineers: Joe Carrano, Jon Russell, Earl Gray Fowler. Dimensions: Room 1: Studio 40 x 30, control room 20 x 18. Room 2: control room 20 x 20. Mixing Consoles: SSL 4056G TR 48 x 32 w/Total Recall. Audio Recorders: Studer A80-24 MkIV 24-track, Studer A80-24 MkIV 16-track, Mitsubishi X-850 32-track, Sony PCM-601ESD F-1 2-track, Studer A820-TC 2-track 1/2", Ampex ATR-800 2-track 1/4". Cassette Recorders/Duplicators: (2) Emuig FL-1000E, (20) Sony TCX-150, PSD buffer distribution system, Nakamichi BX-300. Noise Reduction Equipment: Dolby SR/361 w/A cards, dbx Type I. Synchronization Systems: TimeLine Lynx. Echo, Reverb & Delay Systems: Lexicon 224-XL, Lexicon 480L, Lexicon PCM70, Lexicon PCM60, TC Electronic 2290, Lexicon Super Prime Time M97, (4) Yamaha SPX90, (2) Yamaha REV7, Loft DDL-4, (2) MXR DDL. Sound Workshop 262. Other Outboard Equipment: (2) Lydtrak EQP-1, Drawmer 1960 tube comp, dbx 162 stereo comp/limiter, Eventide H949 Harmonizer, (4) dbx 165 Over-Easy comp dbx 905 parametric, dbx 906 flanger/doubler, EXR exciter. Microphones: Neumann U47 FET, (2) Neumann U87, (6) AKG C-451EB, (4) AKG C-414ULS, AKG C-414, AKG D-12E, (2) E-V RE20, (2) Shure SM57, Shure SM58, (2) AKG C-460ULLS, (5) Sennheiser MD-421, Sennheiser MD-441, AKG "Tube," (2) Crown PZM, (2) Sony ECM-22P. Monitor Amplifiers: (2) Haller DH500, (7) Haller DH220. Monitor Speakers: Westlake Audio HR7UF, JBL 4311, Westlake Audio TM-1, Yamaha NS-10M, Auratone Cubes, Cizek M. Musical Instruments: Fairlight Series III CMI, Yamaha DX7, Yamaha DX7II, Yamaha DX5, Yamaha CP80M electric grand, Yamaha G2 acoustic grand, Roland D-550, Roland MKS-70, Oberheim Matrix-6, Oberheim OBXA/MIDI, Hammond C-3 w/Leslie 122, Emax, Rhodes 88, Clavinet E-3, Minimoog/MIDI, Mellotron 400, Roland Juno-60, ARP Omni II, Sonor 6-piece Phonic Plus drums, Hiwatt 50 w/412 bottom, Roland JC-120. Other MIDI Equipment: Simmons MTM, Roland Octapads. Video Equipment: Sony BVU-650 3/4" recorder, JVC HR-725U 1/2" recorder, Drotan 600M 19" monitor, SVT international 26" monitor. Other: Various rehearsal and remote support equipment. Rates: Per project basis starting at \$85/hr.

[24+] **PRIME CUTS STUDIOS, INC.**; 1600 Broadway, Rm. 704; New York, NY 10019; (212) 265-1800. Owner: Mark Kamins, Tula Aquino. Manager: Debra Marino. Engineers: Tula Aquino, Dennis Mueyett, Mervyn Jordan. Dimensions: Room 1: control room 12 x 9. Room 2: control room 12 x 9. Room 3: control room 18 x 16 [MIDI/recording]. Mixing Consoles: Trident Series 24 28 x 24. Audio Recorders: (4) Otari MTR-12 2-track, Otari MX-80 24-track Cassette Recorders/Duplicators; (2) Akai GX-9, (2) Akai GX-912, (2) Nakamichi MR-2. Echo, Reverb & Delay Systems: (2) Ibanez SDR-1000, Yamaha SPX90II, Yamaha REV5, Lexicon PCM42, Lexicon LXP-1. Monitor Amplifiers: Sansui AU-X701, JVC A-X900, Crown Micro-Tech, Yamaha P2250. Monitor Speakers: (4) Yamaha NS-10M, (2) UREI 809, Tannoy 6.5. Musical Instruments: Yamaha DX7II, Roland D-550, Korg M-1, Roland Super Jupiter, Yamaha TX802, Macintosh SE w/Performer software and much more. Other: (2) Sony DTC-1000ES DAT recorder, Akai S900, Akai S950, dbx 903/904, API 550B, Yamaha

—CONTINUED ON NEXT PAGE



THE POWER PLANT RECORDING STUDIOS OF AMERICA  
North Bethesda, MD

[24+] **THE POWER PLANT RECORDING STUDIOS OF AMERICA**; also **REMOTE RECORDING**; 10518 Connecticut Ave.; North Bethesda, MD 20895; (301) 942-9007. Owner: Mickey Rat Enterprises. Manager: Mickey Van Hendrix.

[24+] **POWER PLAY RECORDS, INC.**; also **REMOTE RECORDING**; 223 Washington St., Newark, NJ 07102; (201) 642-5747. Owner: Power Play Records, Inc. Manager: Greg Furgason, Judy Cocozza, Tom Terreri. Engineers: Greg Furgason, Tom Terreri, Kevin Furgason, Chuck Russo, John Zopho, John Elkawitz, Larry Gress. Dimensions: Studio 50 x 20, control room 25 x 20, control room 25 x 20, plus (4) iso booths. Mixing Consoles: Soundcraft 2400 40 x 24 x 2, NEOTEK Series IE 20 x 8 x 2, NEOTEK Series IE 12 x 4 x 2, Yamaha PM700 12 x 12 x 2, (2) Shure M67 4 x 1. Audio Recorders: Sony PCM-3324 24-track digital, Studer A80 MkIV 24-track, Tascam 85-16B 16-track, Otari MX-5050-8SD 8-track, (2) Otari MX-5050 III-2 2-track, (2) Nakamichi DMP-100 2-track, Sony SL-2000, Beta VCR, (2) Sony VO-5850 3/4" VCR, Pioneer RT-707 1/4-track, Cassette Recorders/Duplicators: (2) Tascam 122B, Otari DP-4050 cassette duplicator (5 slaves). Echo, Reverb & Delay Systems: Ursal Major 232 Stargate, (2) Yamaha REV7, Klark-Teknik DN-780, (2) Lexicon PCM41, DeltaLab TimeLine, Ursal Major Space Station, (2) Lexicon PCM70, Ursal Major G36, Roland SRV-2000, Eventide H910. Other Outboard Equipment: (2) Eventide Omnipressor, (3) Orban 516EC sibilance filter, (4) Valley People Dyna-Mite, (2) dbx 163, dbx 166, dbx 165A, (2) Audioarts 4200 parametric EQ, Eventide flanger, (2) Ashly SC-66 [26-channel], dbx Type I, dbx Type II 4-channel, BTX synchronizer. Microphones: Neumann U47, Neumann U87, Neumann U89, Sennheiser MD-441, Sennheiser MD-421, Sennheiser MKE-2, E-V RE20, E-V RE15, E-V RE11, E-V 664, E-V 666, E-V 1777, Sony ECM-50PS, Shure SM81, Shure SM58, Shure SM57, Shure SM60, Countryman direct boxes. Monitor Amplifiers: (2) Haller DH-200, (2) Haller P-500, Dynaco ST150, (2) Dynaco ST120, (2) Crown D-75. Monitor Speakers: Big Red, E-V Sentry 100A, Auratone T6, Bose 800, JBL 4408, Yamaha NS-10M. Musical Instruments: Knabe 1928 upright grand piano, Akai S900 sampler, Yamaha DX7, Korg Poly-6, Roland Juno-106, Linn-

# 24+ TRACK

STUDIOS

—CONTINUED FROM PREVIOUS PAGE

DEQ7 Rates: \$40/hr. editing/studio, plus \$35/hr. editor. \$54/hr. MIDI/tracking studio w/engineer. Specialization & Credits: This is the only specialized editing studio in the U.S., catering to all major producers/rec'd co. w/a staff of the top ten creative music editors around. Plus a just-inaugurated 24-track/MIDI studio w/all the extras!



PRO AUDIO/BIG MO RECORDING  
Wheaton, MD

[24+] PRO AUDIO/BIG MO RECORDING; also REMOTE RECORDING; 11264 Triangle Ln.; Wheaton, MD 20902; (301) 946-7364. Owner: Ed Eastridge, John Sprung. Manager: Ed Eastridge. Engineers: Ed Eastridge, Jim Crenca, Peter Ellena, John Brittain, Flor Freeland. Dimensions: Studio 26 x 32 control room 24 x 8. Mixing Consoles: Soundcraft 16 x 2, custom ESP 40 x 24. Audio Recorders: MCI JH-114 24-track, Aka MG14D 12-track, Sony 5003 2-track w/center time code. Sony/MCI JH-24 24-track, Revox PR99 2-track. Cassette Recorders/Duplicators: (2) Sony DC-DSM, Nakamichi, Technics. Noise Reduction Equipment: Dolby A 28 channels, dbx 2 channels. Echo, Reverb & Delay Systems: Lexicon PCM70, Lexicon PCM60, Roland DEP-5, Lexicon LXP-1, Lexicon M93 delay. (2) Yamaha SPX90, MXR 'langer/doubler. Other Outboard Equipment: Audionarts stereo parametric EQ, (2) JRE LA-3A, UREI stereo graphic EQ, (7) Valley People Gain Brain dbx 900 rack w/de-esser, comp/limiter, noise gate, parametric EQ, (2) TC Electronic TC 1140 parametric EQ, dbx 160 compressor, BBE 802, (6) Valley People Kexex. Microphones: (2) AKG 414EB5, (3) AKG C-535EB, (6) AKG C-451, AKG D-12E, (2) Crown PZM, (2) E-V PL20, (2) Neumann U89, (4) Neumann U87, (2) Neumann KM84, (6) Sennheiser MD-421, (6) Shure SM57, (4) Shure SM58, (3) Beyer M500. Monitor Amplifiers: Bryston, Crown DC-300, Crown D-150A, AMP 8000. Monitor Speakers: (2) UREI 811 Time Align, UREI 811C (studio), (2) Yamaha NS-10, (2) JBL 4408. Musical Instruments: Korg DDD-1 drum synth, Yamaha KX76 MIDI controller, Yamaha 802 synth, Roland GP-8 guitar effects, Yamaha TX8-Z FM synth, Roland GM-70 MIDI-D converter, Roland GR-300 synth guitar, Oberheim OB8 synthesizer, Kawai 9' grand piano, Akai S900 sampler, Akai S1000 sampler, Fender Vibrovert, Marshall JMP half-stack, Roland JC-120. Video Equipment: Panasonic WV-F camera, RCA video camera, JVC TM13V video monitor, Panasonic 19" monitor, JVC CR-850U 3/4" video deck.

[24+] PYRAMID SOUND, INC.; also REMOTE RECORDING; 105 E. Clinton St.; Ithaca, NY 14850, (607) 273-3931. Owner: John Peralas. Manager: Lorri Hunter.

[24+] QUANTUM SOUND STUDIOS; 512 Paterson Plank Rd.; Jersey City, NJ 07307; (201) 656-7023. Owner: Reggie Lucas. Manager: Gary Salzman. Mixing Consoles: SSL 4000E 48 x 56 mainframe w/Total Recall. Sound Workshop Series: 32 x 24 w/disk/mix, Neve 8048. Audio Recorders: (2) Studer A800 24-track, Studer A820 24-track, Studer A820 2-track 1/2" w/time code channel, (2) Studer A80 2-track 1/2" Otari MX-5050 2-track 1/4", (2) M79 24-track. Cassette Recorders/Duplicators: (6) Nakamichi MR-1, Nakamichi DMP 100 digital processor w/Canon VR 40 VHS recorder. Synchronization Systems: (2) TimeLine Lynx time code module, (2) Roland SBX 80 sync box, (2) Roland MPU-401. Echo, Reverb & Delay Systems: EMT 252 digital reverb, Lexicon 224XL digital reverb w/LARC, Quantec ORS stereo digital reverb, Lexicon PCM60, Lexicon PCM70, TC Electronic DDL delay, Lexicon PCM42 w/sampling software (11 secs), Yamaha REV7, Yamaha REV5, Eventide 949 Harmonizer, Eventide 910 digital delay, AMS DMX 15-80 digital delay, Yamaha

# QUANTUM SOUND STUDIOS

QUANTUM SOUND STUDIOS  
Jersey City, NJ

SPX90, Yamaha SPX90II. Other Outboard Equipment: Drawmer DS201 dual gates, Orban 622 parametric equalizer, UREI 527A graphic equalizer, Valley People Maxi-Q equalizers, Valley People limiters and gates, Lang PEQ4 equalizers, Lang PEQ2 equalizers, dbx 165A overeasy compressor/limiter, UREI 1176LN peak limiter, UREI 1178 dual peak limiter, Tubetech equalizers. Microphones: Neumann KM84, Neumann U87, Neumann 47 FET, Beyer M88, Beyer M160, E-V RE20, Sennheiser 421, AKG Tube, AKG 414, AKG 451, Sony C-48P. Monitor Amplifiers: Adcom GFA-555, Halfer Five Hundred, BGW 750. Monitor Speakers: UREI 813C, E-V Sentry 100, Yamaha NS-10M, Auratone. Musical Instruments: Roland D-50 linear synthesizers, Yamaha DX7 w/EI, Synclavier digital music system, Yamaha TX802 w/software, Yamaha TX816 rack, Oberheim Matrix-12, ARP 2600 keyboard, Voyetra 8 polyphonic synthesizer modules, Roland MKS-20 digital piano, LinnDrum modified for MIDI, Simmons SDS2 digital-analog drum system, Roland Octapad, Voyetra VPK-5 polyphonic keyboard, Moog Minimoog July modified for MIDI. Other MIDI Equipment: J.L. Cooper MIDI Brandrider, Roland MPU-401, Roland MPU-101 CV-MIDI interface, Garfield MIDI doc and FSK adapter. Other: Custom-designed MIDI patch bay, IBM PC computers, Apple II Plus computer w/Texture sequencer, Voyetra Octave-plateau voice editor, Octave-plateau MkIII Sequencer Plus, Octave-plateau Patch Master librarian. Rates: Per project, per room. Specialization & Credits: Studio includes spacious Neve and SSL rooms, a Synclavier room with iso booth, control rooms equipped with custom MIDI patch bays, high ceiling live room with revolutionary acoustic panel design and skylights for natural lighting, two private client lounges, completely air conditioned. Located just five minutes from midtown Manhattan and with the luxury of an entire building. Quantum offers both convenience and privacy. The studio's team of experts have designed rooms that combine the latest innovations with a creative, yet functional atmosphere. The studio is easily accessible by subway, bus or car and visitors are welcome. Call the studio manager for appointments.

[24+] RAIN MEDIA PRODUCTIONS; 25 Blossom Heath; Williamsville, NY 14221; (716) 632-2019. Owner: Eric Wobschall. Manager: Eric Wobschall.

[24+] RBY RECORDING AND VIDEO; also REMOTE RECORDING; 920 North Main St.; Southbury, CT 06488; (203) 264-3666. Owner: Jack Jones. Manager: Marjorie Jones.

[24+] READY OR NOT PRODUCTIONS; 250 W. 57th St., Ste. 1527; New York, NY 10019; (212) 491-7253. Owner: R.O.N. Johnson III. Manager: Sweets. Specialization & Credits: No time limit production. One price per song. Free music video and free audio tape. \$100 per song minute. We do more than just record you. We help produce you. We don't just record songs, we produce records. 24-track digital, 8-track analog, 2-track digital mxdown, 2-track MIDI. No time limit recording and production.

[24+] RED ROCK RECORDING STUDIO; Rd 4, Box 4135, Saylor'sburg, PA 18353; (717) 992-5777. Owner: Kent Heckman. Manager: Lois Brownsey. Engineers: Kent Heckman, Mark Heath. Dimensions: Studio 22 x 28 x 17, control room 20 x 16 x 14. Mixing Consoles: Amek Matchless 26 x 24 x 8 x 2. Audio Recorders: MCI/Jony JH-24 24-track, Otari MX-5050B 2-track, Sony 501 digital processor. Cassette Recorders/Duplicators: (2) TEAC C3-RX. Noise Reduction Equipment: dbx 180. Echo, Reverb & Delay Systems: Lexicon 200 digital reverb, Lexicon LXP-1 w/MRC, Lexicon PCM70, Yamaha SPX90, Ibanez SDR-1000, (2) Aleis Microverb, Efectron 1024, Korg SDD-2000 sampling delay. Other Outboard Equipment: UREI 1176LN, (2) LA-3, LA-4, (2) dbx 160, Aphex Compellor, (4) Valley People Dyna-Mite, (2) dbx 160X compressor, dbx 263X de-esser. Microphones: Neumann U87, Neumann U47, AKG 414, Electro-Voice RE20, Shure SM81, Shure SM57, Sennheiser 441, Sennheiser 421, Audio-Technica ATM-31, Audio-Technica ATM-41, Stewart active direct boxes. Monitor Amplifiers: Halfer DH-500, Crown Micro-Tech

Monitor Speakers: Yamaha NS-10, JBL 4425, Auratone, AKG K-240 headphones, Fostex T-20 headphones. Musical Instruments: Macintosh Plus computer w/45MB hard drive and Imagewriter, Southworth Midi Paint software w/Jam Box/4, Opcode TX/DX editor/librarian, E-mu SP-12 turbo drum machine with Drum File software, Yamaha DX7 w/TX416 rack, Charvel MIDI guitar, Yamaha U1 acoustic piano, Mesa/Boogie, Scholz Rockman, Gibson Les Paul 1953, assorted guitars and basses.

[24+] REEL HITS; 15 Bridge Rd.; Weston, CT 06883; (203) 226-4200. Owner: Doris Elliott. Manager: Dean Elliott.

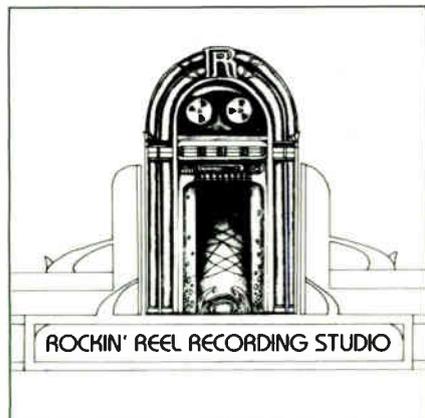


REEL PLATINUM STUDIOS, INC.  
Lodi, NJ

[24+] REEL PLATINUM STUDIOS, INC.; 259 Paterson Ave.; Lodi, NJ 07644; (201) 471-3464. Owner: Bob Allecca. Manager: Bob Allecca, Julian Hernandez. Engineers: Bob Allecca, Julian Hernandez. Mixing Consoles: Trident Series 80 (auto-mated) 32 x 24 x 24. Audio Recorders: MCI JH-24 24-track w/Autolocator III w/16-track head stack, TEAC 80-8 8-track w/DX8 N.R., TEAC A3440 4-track w/RX9 N.R., Technics 1500 2-track, Sony PCM-F1 2-track digital. Cassette Recorders/Duplicators: (2) TEAC 122. Echo, Reverb & Delay Systems: Ecoplate III, Orban IIB, (2) Lexicon Prime Time w/MEO, Lexicon PCM42 w/MEO, Eventide H949 Harmonizer, Eventide instant flanger, (2) Yamaha D1500, (2) Yamaha REV7, Lexicon 200, Lexicon PCM70, Roland 2000, Ibanez 1000, (4) Yamaha SPX90, (2) Lexicon LXP1 w/LARC. Other Outboard Equipment: dbx 26-channel noise reduction, Kexex II, dbx 900 signal processing rack, gates/compressors/de-essers, (2) dbx 160 compressor/limiter, Orban 622B parametric EQ, TEAC GE-20 graphic EQ, Symetrix noise gates, White V3-octave room EQ, (2) Aphex Aural Exciter, (4) dbx 166 compressor/limiter. Microphones: Neumann U87, AKG 414, Sennheiser 441, Sennheiser MD-421, E-V RE20, E-V RE15, E-V 635A, Beyer 201N, Shure SM57. Monitor Amplifiers: Yamaha 2200, Yamaha 2050. Monitor Speakers: JBL 4411, JBL 4312, Yamaha NS-10M, Auratone. Musical Instruments: Yamaha acoustic piano, Fender Rhodes, Korg Poly-6, Yamaha DX7, Sequential Circuits Pro-1. Tama full drum set, percussion, congas, wood block, cow bells, etc., MIDI interface, Roland SBX-80, DMX digital drum machine, Yamaha RX11 digital drum machine, Roland MSQ-700, Apple IIe, DX-Pro (voice library), Akai S612 sampler, Akai MD280 disk drive, Passport MIDI 8 Plus, Korg Super Percussion, MiniDoc, Akai S900 sampler, E-mu SP-12 sampling drum machine, Roland D-550, Oberheim Matrix-1000, Emax HD, SE. Rates: Call (block rates available). Specialization & Credits: We offer in-house production, arranging, lead sheets, full keyboard and drum machine programming. Credits: Mic Mac Records: EXO, Nancy Otero, Brian Brian, Soave, Johnny O, Cynthia, Solid, Rios, Shattered Glass, Body & Style and more. Next Plateau Records: C-Bank, Profile Records: Judy Torres, Route 6, MGEM Prod., Inc., Mickey Garcia, Elvin Molina, Jobo Prod.: Julian Hernandez, Bob Allecca, RCA Records: K.C. Flight.

[24+] REMOTE RECORDING SERVICES, INC.; only REMOTE RECORDING; PO Box 334; Lahaska, PA 18931; (215) 794-5005; FAX: (215) 794-3263. Owner: David Hewitt. Manager: Phil Gitomer. Engineers: David Hewitt and friends. Dimensions: Black truck 24 x 8 x 9. Mixing Consoles: API 44 x 44 factory custom w/560 EQ, Studer 962 14 x 4, Studer 961 10 x 2, (3) Yamaha PM180 6 x 2. Audio Recorders: (2) Ampex 1200 24-track, (2) Sony 3324 24-track digital, Sony 1610 2-track digital processor, Sony BVU-820 2-track VCR, Sony PCM-701ES 2-track digital processor, (2) Studer 810 2-track center-channel time code. Cassette Recorders/Duplicators: (3) Technics Synchronization Systems: (2) Lynx Echo, Reverb & Delay Systems: Urso Major 8X32, Lexicon PCM60, Yamaha REV7. Other Outboard Equipment: (4) UREI 1176 limiter, (4) UREI LA-3A limiter, (8) dbx 903 limiter, (2) Dynaflex noise filter, (4) Valley People Dyna-Mite noise gate, Countryman Dis. Microphones: AKG D-12, AKG 414, AKG 451, Beyer 88, Beyer 160, Beyer 500, E-V RE15, E-V RE16, E-V RE20, Neumann U87, Sennheiser 421, Sennheiser 441, Sennheiser 431, Shure SM17, Shure SM54, Shure SM57, Shure SM58, Shure SM77, Shure SM81, Shure SM85, Sony 535, Sony 536,

Sony C-48, Sony ECM-50, Wahrenbrock PZMs. Monitor Amplifiers: Bryston 4B. Monitor Speakers: (2) Westlake custom w/TAD driver, (2) MDM-4, (2) JBL 4411, (2) Yamaha NS-10, (2) Auratone. Video Equipment: Complete interfacing for live television production, V-drive shaping, time code readers and distribution, Tektronics scope for sync monitoring, audio DAs, color and B&W cameras on stage, (2) 19" video monitors. Other: Portable remote packages for live-to-2-track, both analog and digital. Rates: Call for rates.



**ROCKIN' REEL RECORDING STUDIOS**  
East Northport, NY

[24+] **ROCKIN' REEL RECORDING STUDIOS**; 636 Larkfield Rd.; East Northport, NY 11731; (516) 368-5689. Owner: David Greenberg. Manager: David Greenberg. Engineers: Bob Lesick, David Greenberg, Scott Kersey. Dimensions: Studio 30 x 30, control room 20 x 22. Mixing Consoles: Amek Matchless 36 x 24 w/subgrouping and MegaMix automation. Audio Recorders: Otari MTR-90 24-track, Ampex ATR-102 1/2" and 1/4" 30 ips, Tascam 32 1/4" 15 ips, Tascam 2300 1/4" 7 1/2 ips, Mitsubishi X-850 32-track digital, Mitsubishi X-800 32-track digital, Mitsubishi X-86 or X-80; Sony 3202, 1630, F-1, 501 digital machines available upon request. Cassette Recorders/Duplicators: (4) Tascam 122B. Noise Reduction Equipment: dbx 24 channels. Echo, Reverb & Delay Systems: Lexicon 224, (2) Lexicon PCM70, (2) Yamaha REV7, Korg DRV-3000, Ecoplate II, Eventide H3000, Eventide H910, Lexicon Prime Time, (2) Lexicon PCM42, (2) Lexicon PCM41, (3) Effectron ADM-1024, AMS digital reverb available upon request. Other Outboard Equipment: Kepex II noise gate, Kepex I noise gates, Valley People Maxi Q, parametrics, Gain Brain limiters, UREI 1178 stereo peak limiters, UREI 1176 compressor/limiters, UREI 637 graphic equalizers, UREI 964 digital metronome, UREI Little Dipper, dbx 900 series compressors, dbx 900 series parametric equalizers, dbx 900 series de-esser, B&B Audio CX-1 compressor/noise gates, B&B Audio parametric EQ, Yamaha Q2031 1/2-octave graphic EQ, Roland SBX-300. Microphones: Neumann U47s, Neumann U87s, Neumann U89, Neumann KM88, Neumann KM84s, AKG 414s, AKG D-12s, AKG 451, Sennheiser 421s, Sennheiser 441s, E-V RE20s, E-V RE10s, Beyer 160 ribbon, RCA 77-DX, Sony C-37P, Shure 57s, Shure 58s. Monitor Amplifiers: UREI 6500 w/compensation network, Carver M-1.5t. BGW 750, BGW 600, McIntosh 250, Phase Linear A-15, BGW 50A. Monitor Speakers: UREI 813B Time Aligns, JBL 4312s, JBL 4311s, Yamaha NS-10Ns, Auratones, Pyramids. Musical Instruments: Steinway "M" grand piano, Emulator III 16-bit stereo sampler w/latest libraries, Roland D-50 w/extensive libraries, Yamaha DX7IFD w/extensive libraries, E-mu SP-12 sampling drum machine, LinnDrum w/MIDI and velocity upgrades, Korg DW-8000, Korg PS-3200 analog synth, Hammond B-3 w/Leslie 910, Fender Rhodes Dyno-My-Piano, Rogers drums, Ludwig drums, Gibson guitars, Martin guitars, Musicman bass, Fender 1954 Precision bass, various percussion instruments, Marshall guitar amp, Mesa/Boogie guitar amp, Roland JC-120, Roland Cube, Fender Twin Reverb guitar amp, Fender Super Reverb guitar amp (pre CBS), Fender Bandmaster guitar amp (1950s vintage), Ampeg B-15 bass amp, Acoustic 134 guitar amp, Acoustic 136 bass amp. Other MIDI Equipment: Macintosh SE computer, Macintosh Plus computer, Macintosh 512E w/2MB memory upgrade, Roland SBX-80 sync converter, Mass Microsystems hard drive w/45MB interchangeable disk for massive library storage, Studio Plus MIDI interface.

[24+] **RODEL AUDIO SERVICES**; also REMOTE RECORDING; 1028 33rd St. NW; Washington, DC 20007; (202) 338-0770. Manager: Renee Funk.

[24+] **RPM SOUND STUDIO, INC.**; 12 E. 12th St., 11th Floor; New York, NY 10003; (212) 242-2100. Owner: Robert Mason. Manager: Jane Marvin.

[24+] **SABELLA RECORDING**; 49 Oakdale Rd.; Roslyn Heights, NY 11577; (516) 484-0862. Owner: James Sabella. Manager: Randy Rastello. Engineers: Jim Sabella, Chris Albert. Dimensions: Studio 17 x 22, control room 14 x 16. Designed by Frank Commentale. Mixing Consoles: Neve 8068 MkII 32 x 36 w/Neve VCA grouping automation ready.



**SABELLA RECORDING**  
Roslyn Heights, NY

Audio Recorders: Studer A80 24-track, MCI JH-1108 1/2" 2-track Ampex AG 350 2/4-track, Sony DAT player DTC-1000 ES. Cassette Recorders/Duplicators: Technics M65 2-track. Vector research VCX-400 2-track, (2) Harman Kardon CD 491. Echo, Reverb & Delay Systems: Bel BD80, Bel BD240, Lexicon 200, Lexicon 224, EMT 140 modified by G. Hanks, (2) EMT 240 Gold Foil, DeltaLab DDL1, Lexicon Prime Time M93, stereo tap-d delay, Yamaha SPX90, Yamaha D1500, TC Electronic 2290, Korg DRV-3000, Eventide H3000 Ultra-harmonizer. Other Outboard Equipment: Roger Mayer guitar preamps, Neve II 2264X limiters/compressors, (8) Drawmer gate, (2) Universal Audio 1176, Universal Audio 175B tube limiting amplifier, Pultec H2 EQ, (3) Pultec EQH-2, Pultec HQH-24, Pultec MEQ-1, Pultec EQP-1, P-1F 3-C, (2) Pultec EQP-1A, Pultec EQP-1R, (5) Roger Mayer noise gate, Eventide flanger, (2) Neumann limiter, (2) Gain Brain limiting amp, Simon Systems direct box James Demeter direct box. Microphones: Neumann U67 tube Neumann U87, Neumann U47, Neumann KM84, Neumann KM86, Beyer M88, Beyer M160, Beyer Sound Star, AKG D-12, AKG 452, AKG 414, Sony C37A tube, Sennheiser 421, Shure SM57, Shure SM58, E-V RE20, Neumann M49. Monitor Amplifiers: Halfer 500, Crest, Perreux 8000C, McIntosh 2505, Crown DC-150. Monitor Speakers: Atec Big Red w/special construction design, Auratone 5C, KEF, JBL Pro III, Control 1, Tannoy PBM 6.5, Yamaha NS-105. Musical Instruments: Drums, keyboards, Fender, Hiwatt and Marshall guitar amps, Fender Strat, Gibson Les Paul, Fender bass, Rickenbacker guitar, DX7, programming for all keyboards, LinnDrum complete line of keyboards, drum machines, Voyetra-8, Ensoniq EPS complete library, 2MB memory and hard drive. Video Equipment: JVC V1"

[24+] **SEAR SOUND**; 353 W. 48th St.; New York, NY 10036; (212) 582-5380. Owner: Walter Sear. Manager: Jim Cirile

[24+] **SECRET SOUND STUDIO, INC.**; also REMOTE RECORDING; PO Box 4211; Great Neck, NY 11027; (516) 829-8162. Owner: Jack Malken.

[24+] **SERVISOUND, INC.**; also REMOTE RECORDING; 35 W. 45th St.; New York, NY 10036; (212) 921-0555. Owner: Michael Shapiro, Chris Nelson, Diane Ehrlichman. Manager: Dave Teig. Engineers: Michael Shapiro, Joe Casalino, Chris Nelson, Rick Elliker, Ralph Jones, Gretchen Kryda. Mixing Consoles: Mitsubishi Westar 36 x 36, (2) MCI 618 18 x 18, Audiotronics 24 x 8, Allen and Heath 28 x 28, Soundcraft 16 x 8. Audio Recorders: (2) Otari MTR-90 24-track, Otari MTR-90 16-track, Ampex MM1200 16-track, Otari MX-5050 8-track, Otari MX-5050 4-track, (3) Sony APR-5003, Otari 2-track, (2) Sony APR-5002. Cassette Recorders/Duplicators: Tascam 122, Tascam 122B, KABA duplicators, Otari reel/cassette duplicators. Noise Reduction Equipment: Dolby A, Dolby B, Dolby SR, dbx. Synchronization Systems: (3) CMX Cass system, (1) TimeLine Lynx module. Echo, Reverb & Delay Systems: Yamaha SPX90, Roland SRV-2000, Ursja Major, Eventide Harmonizer, Alesis: MIDverb, Lexicon. Other Outboard Equipment: dbx 160, dbx 160X, Orban de-esser, Gentner and Symetrix phone patch system, Symetrix 511, Sony PCM-501, Sony F1, Pultec EQ, Orban parametrics, Technics SL-P120C CD. Microphones: Neumann U47, Neumann U87, Neumann U89, Neumann TLM170, AKG 414, AKG 140ES, AKG 451, Sennheiser 441, Sennheiser 421, E-V RE20, E-V RE10. Monitor Amplifiers: Crown, McIntosh. Monitor Speakers: JBL 4430, JBL 4425, JBL 4311, JBL 4312, JBL 4401, E-V Sentry, Tannoy, Auratone. Musical Instruments: (2) Kurzweil 250, Kurzweil 225, Emulator Emax, Yamaha DX7, Roland JP-3, Roland Jupiter-8, Roland Super Jupiter, Roland D-550, Alesis-HR-16 drum machine Fairlight, Steinway grand. Other MIDI Equipment: Macintosh computer w/Performer/Composer, Yamaha MIDI patch bays. Video Equipment: Studer 1" layback, JVC 8250, JVC 8290. Sony BVU-800, Ampex VPR 1", Sony Beta, NEC VHS. Other: JVC monitors, Sony monitors.

[24+] **SHEFFIELD AUDIO/VIDEO PRODUCTIONS**; also REMOTE RECORDING; 13816 Sunnybrook Rd.; Phoenix, MD 21137; (301) 628-7260; FAX: (301) 628-1977. Owner: John



**SHEFFIELD AUDIO/VIDEO PRODUCTIONS**  
Phoenix, MD

Ariosa. Manager: Richard Van Horn. Engineers: Bill Mueller, Betsy Harmatz, Garth Michael, Marty Wachter. Mixing Consoles: SSL 4000 40-input w/G Series computer, Neve 8068 MkII 32-input, Trident Series 80 32-input, Sontec 32-input, Neve 8036 16-input, Neve 5104 24-input. Audio Recorders: (2) Sony 3324 multitrack digital, (2) Otari MTR-90II 24-track analog, Studer A80 24-track analog, (2) Sony 3202 2-track digital, Sony PCM-1630 digital processor, Sony DMR-4000, Studer A80 2-track 1/2", Studer B67, Tascam 16-track, Tascam 8-track, Sony DAT PCM-2500, Studer 810 2-track. Cassette Recorders/Duplicators: (12) Tascam 122 MkII Noise Reduction Equipment: Dolby A, dbx. Synchronization Systems: Cipher Digital Softtouch, TimeLine Lynx. Echo, Reverb & Delay Systems: AMS 15-80S, AMS RMX 16, Lexicon 224XL 8.2 software, EMT 140S stereo echo chamber, Lexicon 200, Yamaha D1500, Yamaha SPX90, Lexicon Prime Time, Yamaha REV7, TC Electronic 2290 sampler, Yamaha SPX90II. Other Outboard Equipment: Scholz Rockman sustainer, Sontec parametric EQ, Sontec limiter/compressor, Eventide 911 Harmonizer, UREI 1176, UREI LA-3A, dbx 160X, dbx 162, Valley People Kepex II, Sony DAL-1000 digital limiter. Microphones: Shure, Neumann, AKG, Sony, Sennheiser, Crown PZM, Beyer. Monitor Amplifiers: UREI 6500, Crown, Crest. Monitor Speakers: UREI 813B, UREI 811B, Yamaha NS-10, Auratone. Musical Instruments: Kurzweil 250 advanced sampling keyboard system w/sound block A B C, Macintosh Plus and Kurzweil disk library, Sonor drums, Yamaha C7 grand piano, Hammond B-3. Other MIDI Equipment: Digital workstation/MIDI room w/WaveFrame tapeless studio for original music composition, album pre-production and audio-for-video, automated outboard gear via SMPTE/MIDI interface using Mac Plus (in studio). Video Equipment: (9) Ampex 1" VTR, Betacam SP w/Dynamic Tracking, (2) ADO, NEC System 10, AVC 33 switcher w/3MB, Ampex 4100 switcher (2) Ampex Ace editor, Ampex VPR5 1" portable, Chyron Scribe, Thompson 601A, Sony BVP-30 broadcast camera, Betacam BVV-5 SP, Ampex VPR5 1" portable. Other: 22" video remote truck w/Grass Valley switcher, (2) video edit suite, (2) video studio (40' x 60' and 20' x 30'). Rates: Call for information. Specialization & Credits: We specialize in remote digital and analog multitrack recording as well as audio and video production and post-production. The remote audio truck is a custom-built 30-foot truck with a Neve 8068 console and Sony 3324 digital recorder. We can also offer portable packages featuring a custom made Neve "sectional" console in road cases. Recent clients include Deutsche Grammophone, PolyGram, Erato, Chrysalis, ABC, CBS and many others. Other features of the studio include a country setting, lockouts and accommodation packages.

[24+] **SHOOTINGSTAR RECORDING STUDIO**; also REMOTE RECORDING; 455 Dunbaron Rd.; Manchester, NH 03102; (603) 623-6261. Owner: Ray Grimard, Denis Maltias. Manager: Denis Maltias.

[24+] **SKYLINE STUDIOS**; 36 W. 37th St.; New York, NY 10018; (212) 594-7484. Owner: Lloyd Donnelly, Paul Wickliffe. Manager: Barbara Moutenot.

[24+] **SONIC IMAGES PRODUCTIONS, INC.**; also REMOTE RECORDING; 4590 MacArthur Blvd. NW; Washington, DC 20007; (202) 333-1063. Owner: John Ramo, Jolie Barbieri, Zenon Slawinski. Manager: Zenon Slawinski. Engineers: Zenon Slawinski, John Ramo, Dave Mackin, Malcolm Pelpow, Peter Ramo. Dimensions: Room 1: studio 16 x 14, control room 22 x 14. Room 2: studio 12 x 12, control room 12 x 9. Room 3: video edit suite 10 x 12. Mixing Consoles: NEOTEK Series II 28 x 24 w/remote, Sound Workshop Logex 8 20 x 16. Audio Recorders: MCI JH-110 4-track, MCI JH-24 24-track, Otari MX-5050 8-track, Sony PCM-F1 2-track digital, Otari MTR-12 2-track w/center-track time code, Otari 5050 MkII 2-track, (2) Otari 5050B 2-track. Cassette Recorders/Duplicators: (2) NAD 6050C, Technics M222. Noise Reduction Equipment: (4) dbx 150X. Synchronization Systems: Audio Kinetics Q.Lock Eclipse. Echo, Reverb & Delay Systems: (2) —CONTINUED ON NEXT PAGE

# N O R T H E A S T 24+ TRACK STUDIOS

—CONTINUED FROM PREVIOUS PAGE



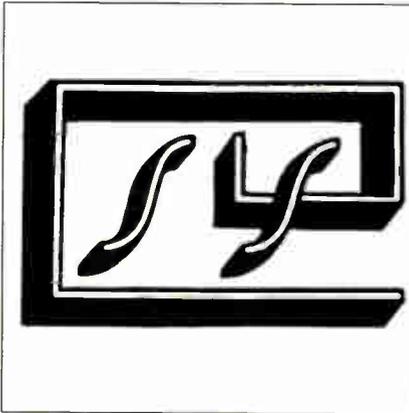
SONIC  
IMAGES  
PRODUCTIONS, INC.

SONIC IMAGES PRODUCTIONS, INC.  
Washington, DC

Yamaha REV7, Yamaha SPX90, MXR digital delay, others upon request. Other Outboard Equipment: dbx 166 compressor/limiter w/noise gates, (2) Symetrix CL 100 compressor/limiters, Aphex Aural Exciter, others upon request. Microphones: (2) Neumann U87, (4) Sennheiser 421, (2) AKG 460B w/CK61 cardioid head, Shure SM58, Shure SM57, Shure SM56, (2) E-V RE20, AKG 451. Monitor Amplifiers: Yamaha M60, Yamaha M40, (2) Yamaha P2075C. Monitor Speakers: (2) KEF 104.2, (4) KEF 103.2, (4) Auratone. Musical Instruments: Kurzweil 250 w/50K sampling and extensive sounds stored on Macintosh disks, Ibanez MIDI guitar controller, Yamaha DX7 w/extensive library, Roland Planet-P MIDI module, Roland Juno-6 synthesizer. Other MIDI Equipment: Roland MSQ-700 MIDI recorder, Southworth Jam Box 4+, Macintosh Plus w/Mark of the Unicorn Performer/Composer software, Apple Hypercard, Opcode/Laurie Spiegel's Music Mouse, Farallon Mac Rec. package software. Video Equipment: Sony VO-5850 3/4" VCR, Sony VO-5800 TC 3/4" VCR, Sony 5600 3/4" VCR, Sony RM-440 editor, Tektronix Waveform monitor and Vectorscope, JVC monitors, JVC VHS Hi-fi duplicator, Macintosh Plus w/Macromind, ThunderScan, Silicon Beach Superpaint, VideoWorks II software. Other: Pyxis digital video effects generator w/TBC, Laird 1500 editor/character generator, (2) Technics SL-P720 CD player, (5) Macintosh Plus w/2.5MB internal RAM and 40MB, Laird 1030 color encoder, EECO time code reader, (2) Sony SL0-383 1/2" VCRs w/Sony editor. Rates: 24-track A/V Q-LOCK \$120/hr., 24-track mix \$90/hr., 8-track \$60/hr., 3/4" offline editing \$60/hr., night/weekend 24-track record/mix \$75/hr. Specialization & Credits: Sonic Images specializes in award-winning music productions for all AV presentations and broadcasts. All styles and techniques are used from solo instruments to orchestral instruments to orchestral scores. Working in a LEDE<sup>®</sup>-controlled environment designed by Neil Muncy insures you the most accurate audio image available today. With the latest audio/video synchronization tools on hand, we can offer you show the highest quality audio production at affordable prices. Our award-winning video team produces a wide range of programs from TV spots and PSAs to art films and documentaries, complete album, cassette and CD production. Call us for a bid on your next project whether it be music, a script, talent or the complete presentation. Ask us about our current CD-I projects with American Interactive Media (AIM) a Philips/PolyGram Corp. You'll like what you hear.

[24+] **SORCERER SOUND**, 19 Mercer St., New York, NY 10013; (212) 226-0480. Manager: Vera Beren. Engineers: Jim Groatley, Judy Kirschner, Sue Dyer. Dimensions: Room 1: studio 25 x 17, control room 15 x 15. Room 2: studio Big!, control room 22 x 20. Mixing Consoles: Neve 62 x 24 w/GML automation, Acoustilog GB-1 32 x 24. Audio Recorders: (2) Studer A820 24-track, Studer A800 24-track, MCI JH-114 24-track, (2) Studer A820 2-track 1/2", Studer B67 2-track, MCI JH-110 2-track, Tascam 80-8 8-track, Ampex 440B 4-track 1/2". (4) Technics 1500 2-track, (2) Panasonic KV-3500 DAT. Cassette Recorders/Duplicators: (5) Onkyo 2086, (3) Onkyo 2058. Noise Reduction Equipment: Dolby A or dbx for all machines. Dolby SR 2-track mixdown, Phase Linear 1000 autocorrelator. Synchronization Systems: Studer TLS-4000. Echo, Reverb & Delay Systems: Lexicon 224X, Lexicon 224, Lexicon PCM70, Lexicon PCM60, Lexicon PCM42, Lexicon Prime Time, Lexicon Prime Time II, Yamaha REV7, Yamaha SPX90, Yamaha SPX90II, TC Electronic 2290 32 sec. sampler, EMT 251, EMT 140 stereo plates, Ibanez SDR-1000, Roland

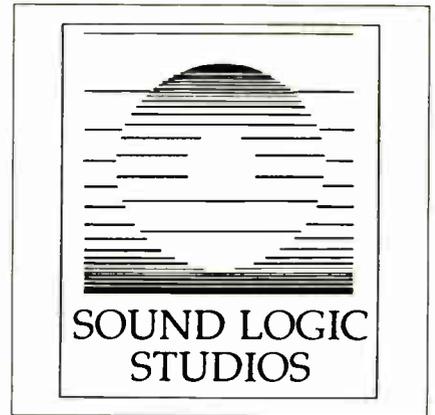
SDE-1000, Tapco Dimension "D" 4400, Tapco 4500 reverb, Publison DHM-89, Eventide 949 Harmonizer, Eventide Instant Phaser, AMS RMX, AMS DMX, Lexicon LXP-1, Delta T. Other Outboard Equipment: Neve EQ, API 660A EQ, UREI 527A, Pultec EQP-1S, Pultec MEQ-5, ROR parametric EQ, UREI parametric EQ, dbx 160X, dbx 161, dbx 162, dbx 164, dbx 165 limiter, Teletronix LA-2A, UREI LA-3, UREI LA-4, UREI 1176 limiter, Neve limiter, many Kexep II, Gain Brain II, Valley People Dyna-Mite, Drawmer gate, Acoustilog Image Enhancer, Galax, UREI Dig Metronome, GMC parametric EQ, Orban de-esser, Panscan, Roland Vocoder. Microphones: AKG 414, AKG 451, AKG 460, AKG 422, AKG C-12A, AKG D-12, AKG D-112, AKG D-310, AKG D-160, AKG C-535, AKG D-202, AKG D-224, Neumann U47 tube, Neumann U48, Neumann U87, Neumann U67, Neumann U64, Neumann KM253, Neumann KM84, RCA 77-DX, RCA 44, E-V RE20, E-V RE16, Sennheiser 421, Sennheiser 441, Sennheiser 405, Sennheiser MD211, Beyer M160, B&K 4007, Shure SM57, Shure SM58, Shure P2M. Monitor Amplifiers: Ramsa, Phase Linear, SAE, BGW. Monitor Speakers: Gauss Coax w/subwoofers, E-V Sentry 100A, Yamaha NS-10M, ROR B, ROR E3. Musical Instruments: Steinway "B" 7' grand piano, Yamaha DX7, Yamaha TX816, Yamaha RX7, Roland JX-8P, Roland MKS-80 Super Jupiter, Casio CZ-101, E-mu Emulator II, E-mu SP-12, LinnDrum, Sequential Circuits Prophet-2000, Ludwig drums, Slingerland drums, Tama drums, Wurliizer electric piano, Hohner D-6 Clavinet, Fender amp, Armpage amp, Mesa/Boogie amp, Marshall amp, various percussion toys. Other MIDI Equipment: Kahler Human Clock, Roland SBX-80, Garfield Dr. Click. Video Equipment: Sony BVU-200 U-matic deck, Sony VP-5020 U-matic player, VHS and Beta 1/2" decks. Other: Sony PCM-701 PCM converter, Panasonic KV-3500 DAT recorder. Rates: Call for rates.



SOUND LAB STUDIOS LTD.  
Brooklyn, NY

[24+] **SOUND LAB STUDIOS LTD.**, 4760 Bedford, Brooklyn, NY 11235; (718) 934-8585. Owner: Peter C. Diorio. Manager: Michael Potash. Engineers: Peter Diorio, Michael Potash, Bill DeMarco, Darin Manigot. Dimensions: Studio 30 x 20 x 10, control room 20 x 14 x 10. Mixing Consoles: Harrison 4832 48 x 96 (full computerization). Audio Recorders: (2) Otari MX-80 32-24 machine, MCI JH-110B 2-track (1/4" or 1/2" format), Studer A80 2-track. Cassette Recorders/Duplicators: (2) Nakamichi Echo, Reverb & Delay Systems: Lexicon 480L, Lexicon 200 digital reverb, (2) Ibanez SDR-1000, Lexicon Prime Time, Lexicon DDL-2 digital delays, Lexicon Super Prime Time, AMS Harmonizer digital delay, tape delays. Other Outboard Equipment: (10) Kexep, (6) Gain Brain, (2) Orban parametric EQ, UREI 1176 limiter, dbx 161 comp/limiter, Eventide H949 Harmonizer, MXR doubler/flanger, (4) Valley People 610 expander. Microphones: Neumann U89, Neumann U87, Neumann U46, Neumann KM84, AKG 414, AKG 451EB, AKG D-244, Tube, Sennheiser 441, (5) Sennheiser 421, E-V RE20, Shure SM57, Shure SM58. Monitor Amplifiers: (3) Crown DC-300A Crown D-75, Crown D-60, QSC 31. Monitor Speakers: Big Red w/new Gauss 3588 speakers, Yamaha NS-10M, ROR Musical Instruments: (2) IBM 64-track Sequencer Plus sequencer, LinnDrum, Yamaha grand piano, Sequential Circuits Prophet-5, Korg CX3, D6 clavinet, Fender Dyno-My Rhodes, Fender Twin, Music Man, Marshall amplifiers, Yamaha DX7, Kurzweil 250, Yamaha power drums, Seymour Duncan amp. Akai S900 sampler, Casio FZ-1 sampler, Yamaha TX8 rack, Oberheim Matrix-12, Roland Super Jupiter. Specialization & Credits: Sound Lab features two full IBM computer systems and a Macintosh Plus computer. We have available practically every music software program on the market, facilitating the interface with most any MIDI system or applications. We also offer music computer consultations to derive custom systems for the artist/producer.

[24+] **SOUND LOGIC STUDIOS, INC.**, also **REMOTE RECORDING**, 3209 Birchtree Ln., Silver Spring, MD 20906; (301) 871-0200. Owner: Henry Hall Bartlett II. Manager: Mark Greenhouse. Engineers: Mark Greenhouse, Hank Bartlett, Todd Morse, Steve Johnson, David Burroughs. Dimensions: Room 1: studio 15 x 15, control room 16 x 25. Room 2: control



SOUND LOGIC STUDIOS, INC.  
Silver Spring, MD

room 15 x 12. Room 3: studio 10 x 10. Mixing Consoles: Soundcraft Series 600 32 x 24, Soundcraft Series 200B 24 x 12. Audio Recorders: Sony/MCI JH-24 24-track, Studer A810 3-track w/center time code, TEAC 35-2 2-track Cassette Recorders/Duplicators: Nakamichi MR-1, TEAC 3RX Noise Reduction Equipment: (18) dbx Type I Echo, Reverb & Delay Systems: (3) Lexicon PCM70, (2) Effectron 1024. Other Outboard Equipment: (2) Valley People Dyna-Mite noise gate, (2) dbx 160 comp/limiter, (2) Klark-Teknik DN410 parametric EQ, Aphex Type B, LA-4 comp/limiter. Microphones: Neumann U89, (2) AKG 414EB, (4) Sennheiser 421, (6) AKG C-451, (2) Shure SM57, AKG D-12E, (2) Countryman direct box. Monitor Amplifiers: Bryston 4, Crown D-150. Monitor Speakers: (2) UREI Time Align MDL 813, (2) Auratone, (2) JBL 4402. Musical Instruments: Kurzweil 250, Kurzweil 1000 expander, Yamaha DX5, Oberheim Matrix-12, Moog Mini-moog MIDI, Linn LMII MIDI drum synth. Other MIDI Equipment: Macintosh Plus, Performer software, Composer software, Opcode patch librarian. Other: Roland Compu-Editor automation. Rates: 24-track \$65/hr., 2-track \$40/hr.; MIDI room \$25/hr.

[24+] **SOUND ON SOUND RECORDING, INC.**, 322 W. 45th St., New York, NY 10036; (212) 757-5300. Owner: Seymour Amien, David Amien. Manager: David Amien, Wesley Derbyshire. Engineers: Michael McMackin, David Amien, Peter Beckerman, Kevin Forrester, Bryce Goggin. Dimensions: Room 1: studio 30 x 25, control room 20 x 18. Iso A: 15 x 12. Iso B: 6 x 10. Mixing Consoles: NEOTEK Elite 40 x 26 with Diskmix moving faders automation. Audio Recorders: Otari MTR-90II 24-track, Otari MTR-12II 24-track 1/2", Otari MX-5050BII 2-track 1/4", Sony PCM-F1 2-track digital Cassette Recorders/Duplicators: Tascam 122, Nakamichi MR-2. Noise Reduction Equipment: dbx Type I (for 1/4"). Synchronization Systems: Adams-Smith Zeta-3. Echo, Reverb & Delay Systems: Lexicon 480L w/12 second stereo sampling, AMS RMX 16, AMS DMX 15-80S w/stereo sampling, Lexicon PCM70, Lexicon Prime Time II, Lexicon PCM42, TC Electronic 2290 w/sampling, Yamaha REV7, Roland SRV-2000, ART DR-1. Korg SDD-2000 w/sampling. Other Outboard Equipment: UREI 1176LN, UREI LA-4, dbx 165A, dbx 166, Teletronix LA-2A, Drawmer DS-201 dual gate, Valley People Dyna-Mite, Eventide H949 Harmonizer, Tubeltech PE-1B, Tubeltech ME-1A EQ, Aphex Type C Exciter. Microphones: AKG 414, AKG 451, AKG D-12, AKG D-112, Beyer M201, Beyer M500, E-V RE20, E-V PL10, Neumann U47 tube, Neumann U47 FET, Neumann U67 tube, Neumann U87, Neumann U89, Neumann KM84, Shure SM57, Shure SM58, Shure SM81, Sennheiser 421, Sennheiser 441. Monitor Amplifiers: Bryston 4B, Bryston 2BLP, Yamaha PC2002. Monitor Speakers: UREI 813A, JBL 4430, JBL 4401, Yamaha NS-10, E-V 100A, Auratone 5C. Musical Instruments: Steinway B 1898 grand piano, Hammond C-3 w/Leslie 122, Fender Rhodes 73, Gretsch 5-piece drums w/Zildjian cymbals, Yamaha DX7, Sequential Circuits Prophet-600 w/MIDI, Chroma Polaris w/MIDI, Akai S900 sampler, E-mu SP-12. Other MIDI Equipment: Atari 1040ST w/C-Lab Creator software, Yamaha MJC8 MIDI junction box. Video Equipment: JVC CR-8250U 3/4" U-matic videocassette recorder, Sony SL-HF450 1/2" Beta recorder, Sony 27" color monitor, Sony 20" color monitor. Other: UREI digital metronome, Carvin guitar and bass amps, Fender guitar amp. Rates: On request.

[24+] **THE SOUND SPA**, 15 E. 8th St., Chester, PA 19013; (215) 876-2006. Owner: Al Alberts. Manager: Al Alberts, Jr. Engineers: Al Alberts, Jr., Carl Angstadt, Chris Alberts, Richard Weller, Jason Lyle. Dimensions: Room 1: studio 43 x 30, control room 28 x 30. Room 2: studio 30 x 20, control room 20 x 12. Mixing Consoles: Harrison Series B 40 x 32, Tascam M-520 20 x 8. Audio Recorders: Studer A80 2-track, (2) Studer A80 2-track, Foxtex E-16 16-track, Foxtex E-2 2-track w/center-track time code. Cassette Recorders/Duplicators: (2) Akai GX-912. Noise Reduction Equipment: (28) Dolby A, (2) Dolby SR. Echo, Reverb & Delay Systems: Lexicon 480L w/memory expansion, Yamaha REV5, (2) Yamaha REV7, (2) Yamaha SPX90, Yamaha SPX50D, Eventide H3000 Ultra-

Harmonizer, Roland SRV-2000. Other Outboard Equipment: (2) Valley People gate, (2) Drawer gate, (4) dbx 166, (2) UREI 7110 compressor, (4) dbx 263X de-esser, (2) Aphex Aural Exciter, (2) Yamaha MJC8 MIDI switcher, (2) Rane PE15 EQ, DigiTech RDS 7.6. Microphones: AKG, Neumann, Sennheiser, Beyer, Shure, Audio-Technica, E-V. Monitor Amplifiers: Crown, Harman Kardon Citation, Yamaha. Monitor Speakers: (2) UREI 815, (4) Tannoy SRM-12B, (4) Auratone T5, (2) Yamaha NS-10M, (2) Auratone T66. Musical Instruments: (2) Yamaha KX88, Yamaha TX616, Yamaha TX416, Yamaha DX7IID, Yamaha TX812, (2) Oberheim DPX1 sample player, Ensoniq Mirage, E-mu Systems Emax, Oberheim Matrix-12, Sequential Circuits Prophet-VS, Roland D-550, Roland D-110, Roland 707. Other MIDI Equipment: (2) Atari 1040ST computer w/Hybrid Arts SmpTeTrack Pro sequencer and GenPatch sound librarians, Roland Octapads.

[24+] **SOUNDESIGN**: Main Street Gallery, 181 Main St.; Brattleboro, VT 05301; (802) 257-1555. Owner: Billy Shaw. Manager: Joanne Singer. Engineers: Billy Shaw, Joe Podlesny, Al Stockwell. Dimensions: Studio 28 x 30 w/separate iso room, control room 28 x 18. Mixing Consoles: Sound Workshop 28 x 32. Audio Recorders: Sony/MCI JH-24 24/16/8-track, MCI JH 2-track, Otari MX-5050 8-track, (3) Otari MX-5050B 2-track, Revox A77 2-track, Audiotronics AV132B 2-track reel-to-reel high-speed duplicators. Cassette Recorders/Duplicators: Nakamichi, (10) Akai FX71, Otari DP-4050 high-speed duplicators. Noise Reduction Equipment: (2) dbx Echo, Reverb & Delay Systems: Yamaha REV7, (2) Yamaha SPX90, Lexicon digital reverb, Master Room XL-210 stereo reverb, Korg sampling digital delay, Effectron DDL, (2) MXR DDL. Other Outboard Equipment: (8) Valley People Kepex, (2) UREI 1176N limiter, (2) Teletronix LA-2A tube compressor, (2) dbx over-easy compressor, (2) Ashley stereo parametric EQ, (4) Ormni Craft noise gate, (4) Ashley limiter, Altec Vomic IE 27-band stereo graphic EQ, MXR 15-band EQ. Microphones: (4) Neumann U87, Neumann KM84, Neumann KM81, AKG C-414, AKG 451E, (8) Sennheiser 421, (2) Sennheiser 441, (2) Sennheiser 403, AKG D-12, (4) AKG SE-10, Shure SM57, Shure SM58, Shure SM55. Monitor Amplifiers: Crown DC-300A, BGW, Soundcraft. Monitor Speakers: JBL 4311, Yamaha NS-10M, Auratone, custom air suspension system. Musical Instruments: IBM computer for automation w/music software, Yamaha C 6'6" grand piano, Ludwig drum kit, Oberheim DMX drum machine, Fender Twin, Fender Princeton, (2) Crate amplifier, Ampeg B15, Yamaha DX7, Roland JX-3P, Kurzweil K1000. Rates: Block book and replay discounts available. 24-track \$50/hr., 16-track \$40/hr., 8/2-track \$30/hr.

**Soundmirror inc.**  
**BOSTON**

**DIGITAL MIXING, EDITING  
& MASTERING**

**2 TO 24  
TRACK**

**DIGITAL  
LOCATION  
RECORDING**

**76 GREEN ST, BOSTON, MA 02130**  
**CONTACT: JOHN NEWTON**  
**(617) 522-1412**

**SOUNDMIRROR, INC.**  
*Boston, MA*

[24+] **SOUNDMIRROR, INC.**; also **REMOTE RECORDING**; 76 Green St.; Boston, MA 02130; (617) 522-1412; FAX: (617) 524-8377. Owner: John Newton. Engineers: John Newton, Henk Kootstra, Everett Porter. Dimensions: Room 1: control room 20 x 20. Room 2: control room 20 x 15. Mixing Consoles: (4) Studer 900 series 48 x 24 analog, Lexicon Opus 12 x 6 digital, Yamaha DMP7D 16 x 2 digital. Audio Recorders: Sony 3324 24-track, Sony 1610 2-track, Sony 1630 2-track, Sony R-DAT 2-track, Sony F-12 1-track, Audio & Design Digi-4 4-track, Studer 2/4-track 1/4" and 1/2" analog. Cassette Recorders/Duplicators: (4) Studer A710. Noise Reduction Equipment: Dolby A, Dolby SR. Synchronization Systems: Lexicon Opus, Adams-Smith Zeta-3. Echo, Reverb & Delay Systems: Lexicon 480, Yamaha DMP7D. Microphones: (7) B&K 4006 omni, (4) Sanken CU-41, (4) Neumann TLM170, (30) Schoeps all direction patterns, (3) Sennheiser MKH20, (2) Sennheiser MKH40, (4) Neumann KM84, (6) B&K 4011 cardioid. Monitor Amplifiers: Threshold S-500, B&W MPA-810, Studer. Monitor Speakers: B&W 801, Quad ESL-63, ADS 1290, B&W CM2. Video Equipment: 1/2" Beta recorders, 3/4" U-matic recorders, 13" and 27" monitors. Other: Sony CD mastering system. Rates: \$100-\$200/hr. for digital post-production; \$1,000-\$2,500/day for location recording. Specialization & Credits: Flash! Classical expansion! We're already responsible for 20% of the Billboard classical and crossover listings each week. Our clients include all of the classical record labels but

that's not all! Call John, Henk or Everett to find how we out-audiophile even the audiophile record labels.

[24+] **SOUNDTRACK**; 25 E. 21st St.; New York, NY 10010; (212) 420-6010. Owner: Rob Cavicchio. Manager: Ian Huckabee. Steve Stephens. Engineers: Tom Vercillo, Bill Higley, Chris Fibberg, Frank Cardello, Jerry Solomon, Dave Lebowitz. Dimensions: Room 1: studio 27 x 31, control room 19 x 21. Room 2: studio 9 x 11, control room 17 x 19. Room 3: studio 8 x 11, control room 17 x 19. Room 4: studio 12 x 18, control room 21 x 21. Mixing Consoles: (2) SSL 4000 G Series 56 x 56, (2) SSL 6000 E Series 56 x 56, Sony MXP-3000 28 x 28, Sony MXP-3000 18 x 18. Audio Recorders: Sony 3324 24-track, (7) Otari MTR-90 24-track, Otari MX-80 24-track, NED 16-track Direct-to-Disk Post Pro, (2) Otari MTR-12 4-track 1/2", (3) Studer A820 2-track 1/2", (8) Otari MTR-10 2-track 1/4", (2) Sony 2-track professional DAT. Cassette Recorders/Duplicators: (10) Tascam 122 MkII, Nakamichi MR-1. Noise Reduction Equipment: (2) Dolby A. Synchronization Systems: (14) TimeLine Lynx module. Echo, Reverb & Delay Systems: (2) Lexicon 224XL, (3) Lexicon 480L, (4) AMS RMX 16, (4) AMS DDL 6.4, (3) Lexicon PCM70, (4) Yamaha REV7, (4) Roland SRV-2000, (12) Lexicon PCM42, (3) Lexicon Prime Time II, (2) EMT 140 plate reverb, echo plate, EMT 251, TC Electronic 2290. Other Outboard Equipment: (8) Drawer gate, (6) Pultec EQ, (8) Yamaha SPX90, (8) dbx 160X, (4) dbx 165A, (2) Eventide 949 Harmonizer, (2) Eventide 969 Harmonizer, (4) API 550A, (4) Valley People Dyna-Mite comp/lim, (4) Focusrite 110, (14) Neve EQ, Neve prism rack, Massenburg 8200, Summit Audio EQ, TubeTech P1-A EQ, (2) UREI 1176 limiter, TubeTech CL-1A, Eventide H3000, (2) Panscans, BBE 822, (4) Lexicon LXP-1. Microphones: (2) Neumann U47, (4) Neumann U87, (7) AKG 414, (4) AKG 460, (4) Shure SM57, (3) Shure SM58, (5) AKG 421, (2) KM84, E-V RE20, AKG D-12, (2) Crown PZM. Monitor Amplifiers: (8) Bryston 4B, (4) Crown 75 Monitor Speakers: (3) UREI 813B, UREI 813C, (10) Yamaha NS-10, (2) Tannoy 6.5, (2) E-V 100, (6) Auratone. Musical Instruments: Akai S900, Yamaha DX7IID, Yamaha C6 7 grand piano, Yamaha professional drum kit, Roland Jazz Chorus 120. Other MIDI Equipment: Roland SBX-80, Southworth Jam Box/4. Video Equipment: (2) JVC 8250 3/4", (2) JVC 6650 3/4", Sony BVH-200.

[24+] **SOUNDTRACK/BOSTON**; also **REMOTE RECORDING**; 77 N. Washington St.; Boston, MA 02114; (617) 367-0510. Owner: Robert Cavicchio. Manager: Jeanne McGrail. Engineers: (7) engineers. Dimensions: Room 1: studio 19 x 26, control room 15 x 19. Room 2: studio 11 x 18, control room 15 x 19. Room 3: studio 13 x 12, control room 11 x 14. Room 4: studio 11 x 13, control room 11 x 18. Mixing Consoles: SSL 40 x 24, Lexicon Opus 12-input digital recording system, Harrison MR-4 28 x 24, (2) Audioarts 8 x 8, Soundcraft 8 x 8. Audio Recorders: Synclavier 8-track digital tapeless, Lexicon Opus 12-track digital tapeless, (2) Studer A800 24-track, Otari MTR-90 24-track, (3) Sony JH-110 8-track, (4) Studer A810 2-track, Studer B67 2-track, (3) Otari MTR-10 2-track, Otari MTR-12 2-track, Sony PCM-3202 2-track DASH. Cassette Recorders/Duplicators: Otari DP-80 high-speed cassette duplication w/Dolby HX, (6) Tascam 122 MkII. Noise Reduction Equipment: (2) Dolby A, (4) dbx 155. Synchronization Systems: Alpha Boss computer system w/TimeLine synchronizers, Synclavier, Lexicon Opus System. Echo, Reverb & Delay Systems: Lexicon 480, Lexicon PCM70, Yamaha SPX90, Yamaha REV70, Roland SRV-2000, Ecoplate III, AKG BX20, AKG BX10, Lexicon PCM41, Lexicon Prime Time, Lexicon 1200 time compressor. Other Outboard Equipment: (7) dbx 165 compressor, (2) Scamp rack w/comp/gate/pan and ADT, Aphex Compeller, UREI graphic EQ, ADR F769R Vocal Stresser, (5) EXR EX2 Exciter. Microphones: (10) AKG 414, (2) Neumann U89, (4) Neumann U87, (2) Sony C-48, (2) Neumann KM84, (2) Shure SM7, (2) E-V RE20, (2) Sennheiser 441, (2) Sennheiser 421, (3) Crown PZM. Monitor Amplifiers: (4) Bryston B4, Bryston B3, (8) Crown DC-300. Monitor Speakers: UREI 813B, UREI 809, (3) JBL 4311, (6) Yamaha NS-10, Tannoy. Musical Instruments: Synclavier, Yamaha studio grand piano, (2) Impian, Yamaha DX7 w/TX interface rack (2 modules), LinnDrum, Akai S900, harp, marimba, percussion sets, Fender Jazz bass. Video Equipment: Sony BVH-1100A 1" master recorder w/BVT-200 TBC, (3) JVC 8250 3/4", Sony BVU-800 3/4", Sony VO-2860A 3/4", Mitsubishi HS-422 1/2" VHS Hi-fi.

[24+] **SOUNDWAVE INC.**; also **REMOTE RECORDING**; 2000 P St. NW #210; Washington, DC 20036; (202) 861-0560. Owner: Jim Harmon. Manager: Sabina Emerson. Engineers: Jim Bloch, Jim Harmon, Monica Peterschmidt, Pamela Putnam, Karl Kalbaugh, Bill Deputy, independent engineers welcome. Dimensions: Room 1: studio 20 x 20, control room 10 x 20. Room 2: studio 10 x 11, control room 12 x 18. Room 3: studio 9 x 10, control room 14 x 19. Room 4: studio 10 x 20, control room 11 x 13. Room 5: studio 20 x 20, control room 8 x 10. Mixing Consoles: Neve 8232 32 x 24 w/Mastermix automation, NEOTEK Series II 28 x 24, NEOTEK Series II 20 x 16 w/automation, TAC Scorpion 16 x 8, Soundcraft 200B 8 x 4. Audio Recorders: 3M 79 24-track, Studer A80 16-track, 3M 79 2-track, Otari 7800 8-track, (6) Otari 5050 24-track, Studer 810 w/rtime code, Otari MK-70 8-track, Nagra 4L w/sync, Studer 8016 2-track, New England Digital multitrack Direct-to-Disk recorder. Cassette Recorders/Duplicators: Technics M65, Telex duplicator, Tascam 122B, Sony TCD-5M. Noise Reduction Equipment: (8) dbx Type I, (24) Dolby SR. Synchronization Systems: Audio Kinetics Q.Lock/Eclipse, Q.Lock/



**SOUNDWAVE INC.**  
*Washington, DC*

Alpha, Echo, Reverb & Delay Systems: Lexicon 224, (2) Lexicon PCM60, Roland SRV-1000, Lexicon Prime Time, Alesis Microverb. Other Outboard Equipment: (6) dbx 160X, (6) Valley People Dyna-Mite, Sontec EQ, (2) Pultec EQ. Microphones: Neumann, AKG, Sennheiser, Philips, E-V, Shure. Monitor Amplifiers: (3) Crown MT-1200, Crown PSA-2, Crown D-140A. Monitor Speakers: (6) UREI 809, (4) JBL 4311. Musical Instruments: Ensoniq Mirage sampling keyboard, Ensoniq ESG-1 digital synthesizer, Ensoniq SQX-1 sequencer expander, Korg AT-12 chromatic tuner, Roland TR-909 rhythm composer, Korg Poly-6 analog synthesizer, Yanagihara C3 grand piano, Fender amplifier, Roland Juno-6 analog synthesizer, Casio FZ-1 sampling synthesizer. Video Equipment: Ampex VPR-80 1", Sony VO-5800 U-matic 3/4", JVC 8250 U-matic 3/4", (2) Sony monitor, RCA monitor, JVC monitor, Sony VO-9600 U-matic 3/4". Other: Digital recording, audio post-production, (4) Technics CD player, satellite uplink interface, Symetrix phoner, music/SFX libraries on CD. Rates: Available upon request. Specialization & Credits: Since 1979, Soundwave has specialized in the creation of award-winning soundtracks for commercial and non-broadcast producers. Over the past decade, Soundwave has evolved from a single studio facility into a six-studio complex, where half the rooms are custom designed for video sweetening. Features include: New England Digital Direct-to-Disk multitrack recorder, control rooms designed by Chips Davis LEDE® Designs, Inc., layoff/playback to 1" video, automated mixing for up to 24-tracks as well as the ability to handle audio in any format. Waveworks, a subsidiary of Soundwave, composes, arranges and produces original music for client projects. A national satellite network allows full-spectrum, live recording between Soundwave and any other studio on the system. The facility also has music and sound effects libraries on CD, handles talent casting and payment, and is a member of ITS, SPARS and the Better Business Bureau. Please contact Jim Harmon, president, for a tour and additional information.

[24+] **SPECTRUM RECORDERS**; 151 S. Main St., Lanesboro, MA 01237; (413) 499-1818. Owner: Spectrum Recorders. Manager: Peter Seplow

[24+] **STUDIO 900, INC.**; 900 Broadway, New York, NY 10003; (212) 529-3190. Owner: Anthony Battaglia, Willa Bassen. Manager: Willa Bassen. Mixing Consoles: D&R 80GD 32 x 24 w/MegaMix automation. Audio Recorders: Sony/MCI JH-24 24-track w/Alli, Sony APR-5092 2-track w/1/2" heads, MCI JH-110 2-track. Cassette Recorders/Duplicators: Tascam 122 MkII. Synchronization Systems: (2) Adams-Smith Zeta-3 audio/video/MIDI/SMPTE synchronizer. Echo, Reverb & Delay Systems: Quantec digital reverb, Lexicon 200 digital reverb, Lexicon PCM70, Lexicon PCM60, Yamaha REV7, Lexicon PCM41 digital delay, (2) Yamaha SPX90II, (2) dbx 160 limiter, UREI 1176N limiter, Dyna-Mite noise gate. Microphones: Neumann, AKG, Sennheiser, Shure. Monitor Amplifiers: Hafler P-500, Yamaha 2200. Monitor Speakers: (2) Tannoy FS-M, (2) Yamaha NS-10M. Musical Instruments: Yamaha DX7, Roland D-550, Oberheim Matrix-6R, Akai S900 sampler w/full library, LinnDrum box (MIDI), Yamaha custom recording drum kit, Baldwin C 7" grand piano. Video Equipment: JVC CR8250 3/4" videocassette recorder/editor.

[24+] **SUNSET PRODUCTIONS**; 226 E. 54th St., Rm. 403, New York, NY 10022; (212) 832-8020. Owner: Ben Tao. Manager: Melanie Rock

[24+] **SUSQUEHANNA SOUND**; also **REMOTE RECORDING**; 48 A St.; Northumberland, PA 17857; (717) 473-9733. Owner: Robert W. Spangler, Jr. Manager: Scott W. Berger

[24+] **SYNC SOUND, INC.**; 450 W. 56th St.; New York, NY 10019; (212) 246-5580. Owner: Bill Marino, Ker Hafin. Manager: Sherri Tantleff. Engineers: Ken Hahn, Giant Maxwell, Regina Mullen, Pam Barrella, Tom Fritze. Dimensions: Room 1: studio 11 x 14, control room 23 x 22. Room 2: studio 10 x 10. —CONTINUED ON NEXT PAGE

# N O R T H E A S T 24+ TRACK STUDIOS

## —CONTINUED FROM PREVIOUS PAGE

16, control room 16 x 14. Room 3: AMS AudioFile digital editing room 16 x 10. Room 4: studio 22 x 15, control room 18 x 15. Room 5: 11 x 12. Mixing Consoles: SSL 6000G automated console w/stereo modules, SSL 4000E automated console, Soundcraft 2400, Soundcraft 200B, Soundcraft 200. Audio Recorders: Sony PCM-3324 24-track digital, Sony PCM-1630 2-track digital, (3) Otari MTR-9011 with 24/16/8-track heads, Otari MTR-20 4-track, (4) Otari MTR-12 2-track mono/center TC and stereo Nagra capability, MTM 16/35mm magnetic film recorder, cart machine, (4) Otari 5050, Sony 701, AMS AudioFile w/four-hour memory. Synchronization Systems: Proprietary edit system, allowing lockup, edit rehearsal and editing to subframe accuracy of all audio, video and digital machines. Echo, Reverb & Delay Systems: Lexicon 224X w/LARC, Lexicon PCM60, Lexicon PCM42, Lexicon Prime Time II, EMT 140 stereo tube plate, Lexicon PCM70, AMS 15-80S, Yamaha SPX90, Yamaha REV7, Marshall tape eliminator. Other Outboard Equipment: Dynaflex DX-1, Dynaflex DX-2, Dolby SP24, Dolby CAT 43, (6) TTM NR frames w/CAT 22 cards, UREI 1176, Sontec EQ, AN1 stereo simulator, dbx de-essers, Orban de-essers, UREI notch filters, Audio Designs selective limiter, Gain Brain II, Kepex II, Neve stereo limiter, dbx subharmonic synthesizer, Tubetech PE-1B. Microphones: Neumann U89, Neumann U87, E-V RE20, Sanken, Shure SM57. Monitor Amplifiers: Ashly 500 FET, Ashly 200 FET, Yamaha, Crown D-150, Crown D-75, Symetrix A-220. Monitor Speakers: UREI 813C, Auratone, JBL 4411, Fostex. Video Equipment: Sony BVH-2000 1" w/Dolby, (3) JVC 8250, (2) Sony BVU-850, VHS Hi-Fi, (2) Panasonic PT-101 100" projection system, Sony PVM-1220, Sony 19" and 25" monitors, monitor switches in all production areas to facilitate multivideo source operations. Rates: Call for information. Specialization & Credits: Sync Sound is a full-service audio post-production house, ready to meet your audio needs with experience and enthusiasm. Our facilities are specifically designed to accommodate editing and mixing to picture (digital or analog), dialog replacement, overdubs to picture, sound effects design, audience sweetening and Dolby Surround mixing for film. Sync Sound also provides ancillary functions such as: technical consultation, Nagra and mag dubs, SFX library and videotape laybacks.

[24+] **SYNCO SOUND**; 331 Newbury St., Boston, MA 02115; (617) 424-1062. Owner: Andy and Richard Mendelson. Manager: Andy Mendelson, E.G. Haggerty Engineers: Andy Mendelson, Richard Mendelson, Katsuhiko Naito, Doug DeAngelis. Dimensions: Room 1: studio 32 x 20, control room 15 x 16. Room 2: studio 31 x 9. Mixing Consoles: Sony MXP-3036 36 x 24 w/hard disk basis automation. Audio Recorders: Sony JH-24 24-track w/Alli autolocator, Ampex ATR-102 2-track ½", Studer B67 2-track ½". Cassette Recorders/Duplicators: (2) Tascam 122 MkII. Echo, Reverb & Delay Systems: AKG ADR-68K, EMT 140, (2) TC Electronic 2290, (2) Yamaha SPX90II, Roland SRV-2000, Eventide H910, Lexicon LXP-1, live chamber. Other Outboard Equipment: (2) UREI 1176, (2) dbx 160X, Valley People Dyna-Mite, Aphex Compeller, (4) Ashly Audio SC-33, dbx 9000 rack, Ashly Audio stereo graphic EQ. Microphones: (3) Neumann U87, (2) Neumann KM84, (2) AKG 414, (2) AKG 451, Crown PZM, (2) Electro-Voice RE20, (4) Sennheiser MD-421, Shure SM57, Shure SM58. Monitor Amplifiers: Bryston 4B, BGW 750B, Crown DC-300, Yamaha P2200, Crown D-150A. Monitor Speakers: UREI 813, Yamaha NS-10M, Auratone Musical Instruments: Yamaha DX7IID, Roland D-550, Roland S-550, Roland MKB-300, E-mu SP-1200, Yamaha RX5, Yamaha 8' grand piano, Hammond B-3 w/Leslie, Yamaha recording custom drums w/cymbals and hardware, Roland JC-120 Jazz Chorus. Other MIDI Equipment: Atari 1040ST w/Hybrid Arts software, Yamaha MJCB MIDI patch bay, Macintosh SE w/software, Emulator II. Rates: Call for rates—special package rates available. Specialization & Credits: Clients include Figures on a Beach, Cheap Trick, Brad Delp, Eric Clapton, Manufacture, Full Circle, Wayne Wodhams, Bob Mould, Zulus, Michael Gibbs, Aerosmith, Roy Thomas Baker, The Cars, Elliot Easton, Dave Edmunds, Stephen Hague, Greg Hawkes, Michael Jonzun, Cyndi Lauper, Jeff Lorber, Malcolm McLaren, Ministry, Leonard Nimoy, Ric Ocasek, O Positive, Iggy Pop, Andy Pratt, REM, Romeo Void, Roomful of Blues, Star Search, Maurice Starr, George Thorogood and the Destroyers, The Tubes, Peter Wolf, Ivan Ivan, movie soundtrack *The Good Mother*, Sire Records, CBS Records, Capitol EMI, Toshiba EMI, Slash Records and more.

[24+] **SYNTEX**; 1310 Boylston St., Boston, MA 02215; (617) 738-6324. Owner: John Hartcorn. Manager: John Hartcorn.

[24+] **TAMARAND DIGITAL RECORDING**; Garnerville, NY; (914) 639-1000. Specialization & Credits: Digital recording only (3324); 24 acres, 45 minutes from Manhattan; accommodations, swimming pool.

[24+] **TANDEM RECORDING STUDIO**; 19 Greylock Rd.; Boston, MA 02134; (617) 782-4727. Owner: Doug Alexander. Manager: Frank Wolf.



**TAYLOR-MADE PRODUCTIONS**  
Caldwell, NJ

[24+] **TAYLOR-MADE PRODUCTIONS**; Box 309; Caldwell, NJ 07006; (201) 226-1461. Owner: Glenn M. Taylor. Manager: Pauline Taylor. Engineers: Glenn M. Taylor, Hannah A. Taylor, Blackos Taylor. Dimensions: Studio 23 x 18, control room 18 x 18, MIDI room 37 x 12, lounge 10 x 8. Mixing Consoles: Harrison Raven 32 x 32, TEAC Model I (FX returns 8 x 2). Audio Recorders: Otari MX80 24-track, Otari MkIII 8-track with ½" 4-track heads, TEAC 3440 4-track, Studer A80 MkIV 2-track ½", (2) Otari MX-5050B 2-track, Sony PCM-501ES (F-1 compatible) 2-track digital processor, Pioneer 1020L ¼-track. Cassette Recorders/Duplicators: (6) Tascam 122, (2) Aiwa 3200, Nakamichi MR-2. Noise Reduction Equipment: Dolby Type A 28 channels, dbx Type I 44 channels, Symetrix 511 single ended NR 2 channels. Synchronization Systems: (3) TimeLine Lynx, Roland SBX-80 SMPTE/MIDI converter, Otari time code reader. Echo, Reverb & Delay Systems: Lexicon 224XL (V. 8.2), Lexicon 224, EMT 140 stereo plate w/N.Y. Tech. support module, Lexicon PCM70 (Rev 3), Yamaha REV7, Master-Room XL-305 spring, Lexicon Prime Time DDL, Yamaha 1500 DDL, Korg SDD-3000 DDL, DeltaLab Super Time Line, MXR DDL, Lexicon PCM41, Yamaha SPX90 FX processor, Echoplex tape delay system. Other Outboard Equipment: Focusrite dual-channel mod., ISA 115-HD mic pre/parametric EQ, Eventide H3000 Ultra Harmonizer, Eventide H949 Harmonizer, Audio and Design PanScan, BBE 802 exciter, Aphex 602B Exciter, EXR Exciter, Ashly SC66 parametric EQ, (2) Valley People Maxi-Q parametric EQ, Biamp stereo graphic EQ, (2) dbx 165A limiter, (2) dbx 161 limiter, (2) Valley People Gain Brain limiter, Valley People Dyna-Mite 2-channel dynamics controller, Trident stereo limiter, (2) White ½-octave room EQ, (5) Kepex noise gate, Omnicraft noise gate 8 channels, Valley People GateX 4-channel gate, Symetrix signal gate, Drawmer 2-channel sidechain/trigger noise gate, (3) Orban 526A de-esser, Orban 245F stereo synthesizer, Pultec EQH-2 tube EQ, MXR pitch-shift/doubler, (2) MXR mini rack flanger, Symetrix phone patch system, AXE 4-channel direct box, (3) Stewart 4-channel direct box, Scholz Rockman overdrive/chorus delay, Groove-Tubes tube preamp for guitar. Microphones: (2) Neumann U87, Neumann U89, Neumann U47 (nuvistor), (2) AKG 414EB, AKG "The Tube", (2) AKG 451, (2) Shure SM81, (6) Sennheiser 421, (2) Crown PZM, (2) Shure SM58, (4) Shure SM57. Monitor Amplifiers: (4) Halfer P-230, BGW 250-D, Yamaha 2075, Yamaha 2050, Symetrix A220 cue amp. Monitor Speakers: UREI 813C, JBL 4311, Yamaha NS-10, Auratone Cubes, JBL 4408, JBL L-100. Musical Instruments: Roland D-550 w/PG-1000 programmer, (2) Yamaha DX7II (1F), Emulator I, Emulator II w/Universe of Sound CD ROM, Akai S900, Oberheim Xpander, Oberheim Matrix-1000, Oberheim DPX-1, Roland Super Jupiter w/MPG-80 programmer, Korg Poly-800, Casio CZ-101, Roland Vocoder human voice synthesizer, Korg P-3 piano, Casio MT-31, Yamaha TX7, Minimoog MIDI, Prophet-5 MIDI, Korg Poly-6 MIDI, Elka Strix Ensemble, Hohner C-6 Clavinet, Rhodes' 73 stereo Suitcase, Wurliizer electric piano, ARP Axve, Hammond M-3 w/Leslie 760, Yamaha C7 conservatory grand piano w/A.M. Walter hammer, Aleis HR-16, LinnDrum MIDI, Marshall and Fender Twin guitar amps, Martin D-35 and D-28 12-string acoustic guitars, Fender Precision bass, Fender Strat w/Sadowski tremolo, Gibson SG Standard, assorted acoustic percussion/FX, Yamaha recording series 13-piece drum kit w/Paiste and Zildjian cymbals. Other MIDI Equipment: Roland MC-500 64-track sequencer, J.L. Cooper 10 x 8 patch bay, Sonus 8 x 2 thru box, Roland 4 x 1 thru box, Yamaha 2 to 1 MIDI merger, Roland MPU-103 channelizer. Video Equipment: JVC 6650U ¾" video deck, Panasonic AG-1800 ½" VHS deck, NEC 26" color monitor, Panasonic 10" color monitor, video patch bay. Other: Technics SL-P 1200 Pro CD player w/cueing and pitch control, wide selection of stock music; libraries include KPM, Bruton, Ormi, Valerino, First Com, Dimension and custom music. Huge sound FX libraries including Sound Ideas, Bainbridge, Electra,

Optical Media Sampled Library on the E-mu Emulator II, Spectacular series, over 15,000 in all; extensive collection of vintage fuzz, wah, phase pedals from '60s-'70s. Rates: Reasonable; hourly for artists, per-project for custom scoring work. Call anytime

[24+] **39TH STREET MUSIC**; 260 W. 39th St.; New York, NY 10018; (212) 840-3285. Owner: Michael Karp. Manager: Leslie Ballard. Dimensions: Studio 35 x 40, control room 18 x 25. Mixing Consoles: SSL 4048E 32. Audio Recorders: Studer A80VU MkII 24-track, Studer A80VU MkII 2/4-track ½", (4) Studer B67 2-track, Technics RS1502 ¼- and ½-track, Cassette Recorders/Duplicators: (4) Tascam 122B, Sony VU-5800 ¾" video deck. Noise Reduction Equipment: Dolby A 28 channels. Synchronization Systems: (2) TimeLine Lynx modules. Echo, Reverb & Delay Systems: DeltaLab CompuEffectron CE-1700, Eventide H3000BS Harmonizer, (2) Korg SDD-2000 digital delay, Lexicon 224 digital reverb, (2) Lexicon PCM70, Lexicon Prime Time 95, Publison Internal Machine. Other Outboard Equipment: (2) Yamaha D-1500 digital delay, Yamaha SPX90, Yamaha SPX90II, Orban 516 EC dynamic sibilance controller, Teletronix LA-2A, (4) Valley People Kepex II, (2) UREI LA-4A compressor/limiter, Orban 674A paragonix EQ, (2) dbx 160 compressor, (4) Drawmer DS-201 noise gate, (2) Pultec E9H2 Microphones: Neumann U47 FET, Neumann U67 tube, Neumann U87, Neumann U89, Neumann KM84, (4) AKG C-414EB, (2) AKG C-451EB, (2) Beyer 16D ribbon, (2) E-V RE20, (5) Sennheiser 421, Sennheiser 441, Sony ECM-50, (2) Shure SM57. Monitor Amplifiers: Crown PSA-2 bridged, Crown D-150 bridged, Crown DC-300A bridged, Crown D-75 bridged, QSC 1400, Symetrix A220. Monitor Speakers: (2) UREI 813C, (4) Yamaha NS-10M, (2) Auratone, (2) JBL 4320, AKG 141 cue. Musical Instruments: Yamaha C2 grand piano, Fender Rhodes 73 MkIV w/Leslie cabinet, Ludwig drum kit w/complete percussion, timpani, congas, (2) Emulator II w/Sound Designer, E-mu SP-12 drum, Minimoog, Casio CZ-101, Korg MR, Yamaha DX7, Yamaha DX7IID, Yamaha TX816, Oberheim Matrix-12, Oberheim OB-8, Roland D-550, Akai S950, Akai S900, Sequential Circuits Prophet-V. Other MIDI Equipment: J.L. Cooper MSB +, J.L. Cooper 16/20 MIDI switcher, Roland MKS-20, LinnDrum w/alternate chips, Garfield master tape. Other: Apple Macintosh SE w/Drumfile, Unicorn, S900 transfer, Roland MPU-401, Southworth Music Systems interface, IBM Personal Composer, Voyetra Sequencer Plus, Patch Master, Musicomp, Bacchus, Opcode. Rates: Available upon request.



**THIS WAY PRODUCTIONS, INC.**  
New York, NY

[24+] **THIS WAY PRODUCTIONS, INC.**; 503-11 Broadway, Rm. 579; New York, NY 10012; (212) 431-5894. Engineers: Danny Caccavo, Paul Seeger, Robert Agnello, Stuart Kollmorgen. Dimensions: Room 1: studio 11 x 19, control room 12 x 19. Synth room: control room 10 x 16. Mixing Consoles: Soundcraft 1600 24 x 24 producer series. Audio Recorders: Soundcraft 762 MkIII 24-track, Ampex ATR-102 2-track, Ampex ATR-104 4-track, Ampex 300 2-track w/440 electronics. Synchronization Systems: Adams-Smith Zeta-3. Echo, Reverb & Delay Systems: Eventide 2016 signal processor, Eventide H3000 Ultra-Harmonizer, Yamaha REV7, Eventide 969 Harmonizer, Urs Major Space Station. Other Outboard Equipment: Dynatronics cyclosonic panner, (3) ADR Complex II compressor/expander, UREI 1176 limiter, (4) Valley People Dyna-Mite Microphones: Neumann TLM170, (4) AKG 451, (4) Sennheiser MD-421, (2) Shure SM57. Monitor Amplifiers: Crown Micro-Tech 600, Crown DC-300, Phase Linear 400. Monitor Speakers: UREI 809A, Yamaha NS-10M. Musical Instruments: Emulator II, Akai S900, Roland D-550, Roland Super Jupiter, Yamaha DX7, Yamaha 816 rack, Sequential Circuits Studio 440, Synthovoc Vocoder, Sequential Circuits Prophet-5, Mark of the Unicorn Performer (software), Digidesign Sound Designer and Q-Sheet, Opcode sequencer and patch librarians. Other MIDI Equipment: J.L. Cooper MSB 8 x 8 switcher, 360 Systems 4 x 8 switcher, Macintosh SE w/45MB drive. Video Equipment: JVC 6650 ¾" video deck, NEC 26" monitor. Rates: \$75/hr. w/engineer, \$95/hr. w/video lock and engineer



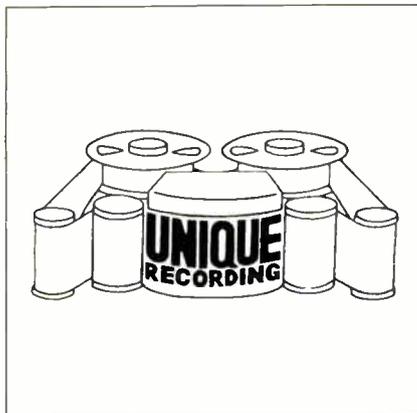
**TIKI RECORDING STUDIOS, INC.**  
Glen Cove, L.I., NY

[24+] **TIKI RECORDING STUDIOS, INC.**, 186 Glen Cove Ave., Glen Cove, L.I., NY 11542; (516) 671-4555. Owner: Fred Guarino. Manager: Inge Palmieri. Engineers: Bob Spencer, Tony Blockis, Mark Gaide, Jim Cremmius, Frank DiMauro, Fred Guarino, Spyros Poulouf. Dimensions: Room 1: studio 40 x 25 x 13, control room 21 x 16. Room 2: control room 15 x 15. Room 3: control room 15 x 15. Mixing Consoles: Trident TSM 40 x 32 w/Megamix SMPTE/disk-based automation, Tangent 32-16 32-input, Tascam #3. Audio Recorders: Studer A80 MkIII 24-track, Studer A80 2-track 1/2", Studer A80 2-track 1/4", Otari MTR-10 2-track 3M M79 2-track, (2) Ampex 440B 2-track, Otari MkII 2-track, TEAC 8-track, TEAC 4-track, (3) TEAC 2-track. Cassette Recorders/Duplicators: (4) Onkyo 2055, (4) Onkyo 2017, (4) Sony 555, (2) Ultrix, Otari DP-4050 C2 duplicator. Echo, Reverb & Delay Systems: Lexicon 200, Yamaha REV7, Yamaha SPX90, (6) Alesis MIDVerb II, Ecoplate, Lexicon Prime Time II, (2) Lexicon PCM42, (2) Eventide 910 Harmonizer, (3) DeltaLab Effectron, Korg SP-2000 sampling DDL. Other Outboard Equipment: (4) Kepex II, (7) Kepex I, (2) Gain Brain II, (2) UREI 1176, (2) UREI LA-3A, (2) dbx 160, (2) Ashly SC-50, Trident stereo limiter, (2) Symetrix CL-100, Yamaha 2020B stereo comp, (2) Aphex Aural Exciter, Eventide flanger, Orban 516 de-esser, (2) Orban 622 equalizer, Ashly SC66A equalizer, Omnicraft GT 4 gate, (25) Isomix HP4 4 channel headphone system. Microphones: Neumann, AKG, Mfob, Sennheiser, Beyer, E-V, Shure, Audio-Technica. Sony (all popular models incl. tube). Monitor Amplifiers: UREI 6300, Yamaha P2100, Yamaha P2050, Crown DC-150A, (4) McMartin MS752 Monitor Speakers: UREI 813A, (4) Yamaha NS-10M, Tannoy NFM-8, JBL 4311, JBL 216, Auratone 5C. Musical Instruments: Yamaha C5 6" grand piano, Slingerland drums, Hammond organ w/Leslie, Roland/Fender/Marshall/Ampex amplifiers, (2) Yamaha DX7, Yamaha TX7, Roland D-55#, Roland D-110, Roland JX-8P, Oberheim Matrix-6, Oberheim Matrix-1000, (2) Akai S900 sampler, Roland 707, LinnDrum w/MIDI. Other MIDI Equipment: (4) Macintosh computer, Kaypro (IBM comp) computer, Atari 1040ST computer, Roland SBX-80 SMPTE/MIDI box, all types of software and libraries. Video Equipment: JVC 6600 3/4" machine, JVC 5500 1/2" machine, Panasonic 1/2" VHS, Adams-Smith Zeta-3 synchronizer, Sony XBR monitors, RCA closed-circuit monitors of all rooms. Other: (10) AKG K-240 headphones, (4) Foster T-20 headphones, (2) Koss Pro 4X headphones. Rates: Please call Fred Guarino or Inge Palmieri. Block and day rates are available. Specialization & Credits: Conveniently located 40 minutes out of NYC on Long Island's scenic north shore, minutes from beaches. Comfortable lounge w/TV and full kitchen. Studio A: 24-track. Studio B: 8-track production. Studio C: MIDI programming. Studio D: dubbing/editing room. Tiki is a professional, efficient recording facility with label work from Atlantic, Elektra, Arista, EMI/Capitol, Motown, Chappell Music, SPV Records, Relativity. Industrial audio/visual works include Cannon, Olympus, Sperry, AT&T, Pfizer, Squibb, Avis, NEC, General Electric, White-Westinghouse, CBS Musical Instruments, Thomson Industries, Nestle, Meade-Johnson, Prentice-Hall, Harry M Stevens Food, etc.

[24+] **TULLEN SOUND RECORDING; also REMOTE RECORDING**; 26 Altamont Ct., Morristown, NJ 07960; (917) 539-8120. Owner: Skipp Tullen. Manager: Barbara Shalit.

[24+] **TWAIN RECORDING**; 18 Hiawatha Pass; West Milford, NJ 07480; (201) 697-7540. Owner: Robert Both. Manager: Robert Both. Engineers: Robert Both, Bob Nicholson. Dimensions: Studio 20 x 25, control room 13 x 14, isolation booth 10 x 12. Mixing Consoles: Speck 800C 28 x 28, Ross 12 x 2 effect-mixer. Audio Recorders: MCI JH-100 24-track, Ampex ATR-101 2-track, Sony 854 4-track, TEAC 3300S 2-track, Nakamichi DMP-100 2-track digital. Cassette Recorders/Duplicators: (5) Hitachi E-44. Noise Reduction Equipment: (3) dbx. Echo, Reverb & Delay Systems: Lexicon 200 digital reverb, Lexicon PCM42 digital delay, Lexicon Prime Time 93 digital delay, WCMIX XL305 reverb, Yamaha D1500 digital delay, Eventide 910 Harmonizer, Roland SRV-2000 digital reverb, Alesis MIDVerb II, Roland SDE-1000 digital

delay. Other Outboard Equipment: (4) GateX noise gate, (3) Roger Mayer noise gate, Orban stereo parametric EQ, EXR II Exciter, (4) dbx 160 limiter, Eventide flanger, Eventide phaser, DOD Electronics stereo chorus/flanger, Soundcraft 2012 graphic EQ. Microphones: Neumann U87, Neumann KM86, (2) AKG 414, (2) AKG 452, (2) Sennheiser 421, (2) Sennheiser 441, (3) Shure SM57, (2) Shure SM56, E-V RE20, E-V RE10, E-V 635A, E-V RE16, E-V DO54, AKG D-12E. Sony C22. Monitor Amplifiers: SAE, Sansui, (2) Carver. Monitor Speakers: JBL 4411, JBL 4312, Braun L200, Auratone, E-V BK315. Musical Instruments: Boss ME-5 multiple guitar effects, Kawai K6-2 grand piano, Fender Rhodes stereo, Roland Juno-106 synth, Roland TR-707 drum machine, Akai S12 digital sampler, Korg DV vocoder, Korg Poly-6 synth, Simmons SDS9 electronic drums, percussion, Slingerland 10-piece wood drum set, Remo roto-toms, Korg II synth monophonic, Scholz Rockman Sustainer, organ w/Leslie, Roland GM-70 guitar MIDI converter, Roland MKS-70 sound module, Roland D-110 sound module, Roland MC-500 micro composer/sequencer. Video Equipment: Hitachi V-16 VCR w/color monitor. Rates: 24-track \$50/hr., 16-track \$35/hr., block rates available.



**UNIQUE RECORDING STUDIOS, INC.**  
New York, NY

[24+] **UNIQUE RECORDING STUDIOS, INC.**, 701 Seventh Ave., 8th & 10th Floors; New York, NY 10036; (212) 921-1711. Owner: Joanne and Bobby Nathan. Manager: Tony Drootin. Engineers: Roey Shamir, Acar Key, Ken Collins, Tom Smalios, Peter Robbins, Angela Piva, George Karras, Richard Joseph. Dimensions: Studio A 12 x 15, Studio B 40 x 20, Studio C 22 x 14. Mixing Consoles: (2) SSL 4000E 56-channel G Series and Total Recall, SSL 6000E 48-channel E series and Total Recall. Audio Recorders: (4) Studer A800 MkIII 24-track, Otari MTR-90 MkII 24-track, (3) Studer A820 2-track 1/2", (2) Studer A810 2-track 1/4", (2) Studer A80 MkII 2-track, (2) Studer B67 2-track, (2) Otari MTR-12 2-track 1/2", (2) Panasonic SV-3500 Pro DAT. Cassette Recorders/Duplicators: (10) Nakamichi MR-1 Noise Reduction Equipment: Dolby A 24-channel (TTM frame), (4) Dolby 361. Synchronization Systems: (3) Adams-Smith w/2600 remotes, SSL Z-8 interface. Echo, Reverb & Delay Systems: (2) Publison Internal 90-21 seconds, (2) Lexicon DRE-2000A, (2) Lexicon 480L, (2) Lexicon 224XL, Lexicon 224X, (3) AMS RMX 16, (2) AMS DMX 15-80S, (2) Eventide H3000, (2) Klark-Teknik DN780, (2) AKG ADR-16, (2) Yamaha REV-1, (3) Yamaha REV7, (3) Yamaha SPX1000, (6) Yamaha SPX90, (3) Lexicon PCM70, (14) Lexicon PCM42, Lexicon PCM60 (3) Ursa Major Space Station, (3) Roland Dimension "D", (3) Eventide H910. Other Outboard Equipment: UREI LA-3A, UREI LA-2A, dbx 165A, dbx 165, dbx 160X, dbx 160, Drawmer DS-201, Drawmer 1960 tube comp, Kepex II, Gain Brain II, Valley People Dyna-Mite, dbx 902 de-esser, Pultec EQH-2, Pultec EQP-1A, Pultec MEQ-5, (16) Neve 1077 mic pre EQ, (8) API 550A, (8) API 560A, (4) API 512B, (8) Focustic EQ, Panscan, FS-1 CycloPanner. Microphones: Neumann M49, Neumann U47, Neumann U48, Neumann U67, Neumann U87, Neumann KM84, Neumann TLM160, AKG C-12, AKG C-12A, AKG 414, AKG 414EB, AKG 451EB, AKG D-12, Telefunken 251, Sennheiser MD-421, Sennheiser MD-441, Sennheiser MD-406, E-V RE20, Shure SM57, Shure SM81, RCA 77-DX, Sony C-500, Sony C-37A. Monitor Amplifiers: Perreaux 6000, Perreaux 3000, Crown Macro-Tech, Yamaha P5002M. Monitor Speakers: UREI 813, Yamaha NS-10M, Yamaha NS-10M studio, Tannoy LGM-12, E-V Sentry 100, Auratone. Musical Instruments: (2) Yamaha C3 conservatory grand w/MIDI, Roland JC-120, Marshall 50-watt 4 x 12, Fender "The Twin," Fender Twin Reverb, Fender Tweed Bassman, Mesa/Boogie MkIII, percussion kit, Yamaha 10-piece pro recording drum kit. Other MIDI Equipment: (3) Yamaha TX816, (3) Yamaha TX802, (3) Yamaha TX81Z, MEP-4, (3) Roland D-56, (3) Roland D-550, (3) Roland D-110, (3) Roland MKS-80/MPI, (3) Roland MKS-20, Roland Juno-60, Roland Juno-106, (5) Akai S900, (3) Korg M1, (4) Yamaha DX7, (3) Yamaha DX71FD, (2) Emulator II CD ROM, (3) Oberheim DPX-1, Oberheim Matrix-12, Oberheim Matrix-6R, Oberheim Matrix-1000, Kurzweil 250RMX, (3) Linn 9000 6.42, Akai MPC-60, (2) Roland TR-808, Roland TR-909, Minimoog w/MIDI,

Arp 2600 w/MIDI, Atari 1040ST color, (2) Mac Plus, Mac SE, IBM PC 640K. Rates: Please call for rates. Specialization & Credits: 48- and 24-track recording/mix/dub/edit. First and foremost MIDI facility, full 1/2" 2-track edit room w/R-DAT.

[24+] **VAN GELDER RECORDING STUDIO, INC.**; also REMOTE RECORDING; 445 Route 9W; Englewood Cliffs, NJ 07632; (201) 567-4145. Owner: Rudy Van Gelder.

[24+] **VICTORY (A SUBSIDIARY OF KAJEM VICTORY)**; 201 St. James Pl.; Philadelphia, PA 19106; (215) 923-9999. Owner: Sam Moses, Joe Alexander, Mitch Goldfarb, Kurt Shore. Manager: Gene Leone.



**VIDEOMIX**  
New York, NY

[24+] **VIDEOMIX**; 123 W. 18th St.; New York, NY 10011; (212) 627-7700; FAX: (212) 727-3075. Owner: CP Sound Manager: Pat Wilcosky. Engineers: Noel Smith, Dick Maitland, Steve Dwork. Dimensions: Room 1: studio 20 x 23, control room 23 x 30. Room 2: studio 25 x 25, control room 25 x 30. Room 3: studio 10 x 13, control room 13 x 20. Room 4: studio 10 x 15, control room 15 x 20. Mixing Consoles: Sony 3000 32 x 24, API 24 x 16, Trident A 40 x 24, Sony 2000 16 x 4. Audio Recorders: Otari MTR-90 24-track, (2) Otari MTR-70 16-track, (3) Otari MTR-14/20 2-track CTC, Otari MTR-14/20 4-track. Cassette Recorders/Duplicators: (10) KABA real-time system, (3) Panasonic DAT, (5) MagnaFax open-reel. Noise Reduction Equipment: (24) Dolby SR, (24) Dolby A, (16) dbx I, dbx II, dbx 929. Synchronization Systems: (2) Soundmaster 8 system. Echo, Reverb & Delay Systems: Lexicon 480L, Lexicon PCM70, Ursa Major. Other Outboard Equipment: dbx 900, Eventide 3000, Rane EQ, (2) UREI 1178, (6) UREI 545 parametric EQ, (4) Technics 1200 CD player. Microphones: Neumann, Sony, E-V and more. Monitor Amplifiers: Crown, Meyer, Carver. Monitor Speakers: Meyer 500, JBL 4425, Yamaha NS-10, Auratone SCUS. Musical Instruments: E-mu II w/CD-ROM, E-mu III w/CD-ROM, Yamaha DX7II, Mac II w/Accelerator/Sound Designer/Alchemy, other misc. Video Equipment: (2) Ampex VPR-6 1", (4) JVC 850 3/4", (2) JVC 1/2" (2) 36" Mitsubishi monitor. Other: MTM 16/35 dubber/recorder, turntables 78 to DAT, A/V cassette and reel-to-reel recorders, full kitchen, executive bath. Specialization & Credits: Audio-for-video post specializing in SFX and music scoring. World's finest SFX collection and Foley stage. Audio-for-A/V productions with scoring room and conference. Duplication and dubbing, international. Multitracks our secret specialty. Interformat D-16 24-32 dbx/Dolby dubbing.

[24+] **WAREHOUSE RECORDING/J.E.M. SOUND**; 1030 N. Delaware Ave.; Philadelphia, PA 19125; (215) 423-7300. Owner: John Moyer, Michele Niceler. Manager: John Moyer, Michele Niceler.

[24+] **WGBW; also REMOTE RECORDING**; 125 Western Ave.; Boston, MA 02134; (617) 492-2777 ext. 2302. Manager: John Voci.

[24+] **WHITE CROW AUDIO; also REMOTE RECORDING**; 19 Marble Ave.; Burlington, VT 05401; (802) 658-6475. Owner: Todd Lockwood. Manager: Douglas Jaffe. Engineers: Todd Lockwood, Chuck Eller, Chris Bailey, Thomas Walters. Dimensions: Room A: studio 30 x 40, control room 18 x 21. Iso room A-1: 15 x 18. Iso room A-2: 10 x 11. Mixing Consoles: Neve 8068 MkII 44 x 32 w/GML automation, NEOTEK Series I 16 x 4 remote. Audio Recorders: Studer A820 24-track w/Dolby SR, Studer A820 2-track 1/2" w/Dolby SR, Studer A810 2-track 1/4" w/Dolby A/SR, Studer A80 2-track 1/4" or 1/2" w/Dolby A/SR, Nagra 4SD 2-track stereo w/Dolby A/SR, Sony PCM-601ES w/Beta and VHS, Sony PCM-2500 DAT. Cassette Recorders/Duplicators: (50) Nakamichi CR-1, Nakamichi 680. Noise Reduction Equipment: Dolby SR, Dolby A. Synchronization Systems: (3) TimeLine Lynx module. Echo, Reverb & Delay Systems: Lexicon 480L effects system, Lexicon PCM70, Lexicon 224 4.2, AMS 15-80S DDL, AMS RMX 16 reverb, EMT 240 Gold Foil, Eventide H949 Harmonizer, Del-

—CONTINUED ON NEXT PAGE

—CONTINUED FROM PREVIOUS PAGE



WHITE CROW AUDIO  
Burlington, VT

taLab DL-3 DDL, Lexicon PCM42 DDL, dbx 906 DDL. Other Outboard Equipment: Neve 33609ST limiter, (5) API 550A EQ, Barcus-Berry Electronics 802, (4) Kepex II, (4) dbx 903 limiter, (8) dbx 904 gate, (2) dbx 905 EQ, (2) UREI 1176 limiter, (2) John Hardy MI mic preamp, Wendel jr., Tubetech PE1B EQ. Microphones: (2) Neumann TLM170, Neumann U47 tube, (2) AKG C-460/ULS, (2) Neumann U89, (2) Neumann KM84, (2) AKG 414EB/P-48, (3) AKG 451E, (6) Sennheiser 421, (2) Beyer MC740N, Fostex M-88, AKG D-12, (3) E-V RE20, (2) Crown PZM-30, (3) Shure SM81, Sanken CMS2 stereo Monitor Amplifiers: (2) Briston 4B Pro, (2) Crown D-150, Crown DC-300 Monitor Speakers: (2) UREI 813A w/UREI 539 EQ, (2) Yamaha NS-10M studio, (2) Snell J, (2) Auratone, (2) EAW M550, (2) Tannoy NFM-8. Musical Instruments: Steinway B 1980 7' grand piano, Kurzweil K250 A/C, Linn 9000 w/Roland drum pads, Yamaha DX7iISD, full line of drums, synths, amps available on rental. Video Equipment: Sony VO-5800 3/4" deck w/Lynx interface. Rates: Call for quotation and our producer's guide. Specialization & Credits: White Crow serves discriminating clients from the greater New York and Los Angeles areas who desire privacy and elegance at competitive rates. Our clientele covers a wide range of musical territory, from Ace Cooper to Odette. Our large, quiet studio enables us to accommodate acoustically oriented projects not feasible at many other facilities. We invite producers and artists to come and enjoy one of the Northeast's most entertaining small cities while recording at White Crow.

[24+] **WILDFIRE RECORDING**; also *REMOTE RECORDING*; 200 Rte. 206, South, Vincentown, NJ 08088; (609) 859-1296. Owner: Keith Yates. Manager: Margaret Howard. Engineers: Eric Yates, John Schwika, Rick Parks, Ted Johnson. Dimensions: Room 1: studio 24 x 30, control room 6.5 x 10. Room 2: studio 12 x 17, isolation room 7.5 x 5. Mixing Consoles: Akai 12 x 12, Hill 16 x 12 multmix w/insert modification, Peavey MD-16 16 x 2. Audio Recorders: Akai MG1212 w/autolocator, Akai MG14D w/autolocator, auto punch in/out and automute groups. Cassette Recorders/Duplicators: Fostex 20, Akai GX-912. Noise Reduction Equipment: dbx Type I 24 channels. Synchronization Systems: Adams-Smith Zeta-3. Echo, Reverb & Delay Systems: Lexicon PCM70, Yamaha REV7, (2) Yamaha SPX90, (2) Ibanez SDR-1000 plus, ART MultiVerb, Ibanez DM-1100, ADA multieffects w/remote, Korg SDD-1200 dual delay w/sampling, SRD chorus/delay, Rocktron Prochorus. Other Outboard Equipment: Audio Logic MT44 quad gate, (2) Ibanez MSP-1000 comp/lim/1/2-octave EQ, Hush 2C, Hush 2, RX2H exciter/imager, Rocktron 300 comp/lim/hush, Yamaha GC2020 stereo comp, Korg KME-56 multi-EQ, Korg KMX-62 mixer, Roland GP-8 w/FC-100 controller, Rane PE-15 EQ, various ICD EQs and processors. Microphones: AKG, Audio-Technica, E-V, Sennheiser, Shure. Monitor Amplifiers: Carver PM-175, Tascam PA-30B, (2) Tascam MH-40 (4-channel headphone amp). Monitor Speakers: JBL 4312A, Fostex RP-60, (2) Peavey 112HS floor monitors, (2) Peavey SP2, Bic Venturi Series SX. Musical Instruments: Korg DSS-1 w/megaword memory, Oberheim Matrix-6R, Akai S900, Roland Octapad, Oberheim XK master keyboard, Casio CSD-1000, Yamaha TX7, (2) Yamaha FB-01, Roland Juno-1, Roland Planet P, Roland DDR-30 digital drums, Tama 11-piece drum set w/assorted brand-name cymbals, Jackson Strat w/(2) EMG Humbuckers and Floyd Rose, Ibanez acoustic, Kimball full harp upright, Roland TR-707. Other MIDI Equipment: Atari 1040ST w/Hybrid Arts SimpleTrack and Drumware sample editor, Akai ME30P MIDI patch bay, Yamaha MFC1 controller w/pedal, Digital Music MX-8 MIDI processor, Ibanez EPP 400 loop selector. Video Equipment: Philco 4-head VHS Hi-fi w/Dolby B. Other: Mesa/Boogie MkII and III guitar amps, modified Marshall Lead 12, Peavy Renown, Scholz Sustainer 200, Rane RE14 2/3-graphic EQ w/analyzer, Groove Tubes bass preamp, Franklin 2000 w/Master Tracks Pro and M for the ST, TX7 library. Rates: Call for rates. 12-track remote recording available.

## 12&amp;16 TRACK

## STUDIOS



AURA: THE AMERICAN UNIVERSITY  
RECORDING ASSOCIATES  
Washington, DC

[16] **AURA: THE AMERICAN UNIVERSITY RECORDING ASSOCIATES**; Physics Dept. Audio Tech. Program; 4400 Mass. Ave., NW, Washington, DC 20016; (202) 885-2759; (202) 885-2743. Owner: The American University. Manager: Student Management. Engineers: Staff engineers are drawn from the pool of Audio Tech. students who have qualified through the program's studio courses. Dimensions: Room 1: studio 18 x 20, control room 10 x 15. Room 2: studio 15 x 18. Room 3: studio 18 x 20. Mixing Consoles: Sound Workshop 20 x 8, (2) Yamaha 8 x 4, Allen and Heath 12 x 2. Audio Recorders: Ampex MM1000 16-track, (2) Revox B77 2-track, Tascam 8-track, Tascam 3440 4-track. Cassette Recorders/Duplicators: BIC, Tascam, Sony Beta Hi-Fi. Noise Reduction Equipment: (8) dbx 180 stereo. Synchronization Systems: Southworth Jam Box, Horita time code reader/generator/windubber. Echo, Reverb & Delay Systems: (2) Lexicon PCM70, (2) Roland DEP-5, (2) DeltaLab Effectron, (2) Yamaha REV1000, Lexicon LPX. Other Outboard Equipment: Aphex Aural Exciter, (2) Valley People GateX, (5) Rane graphic EQ, (2) Valley People Dyna-Mile compressor/limiter, Audioarts parametric EQ, (2) Ashly Audio compressor/limiter, Symetrix gate/expander, Rane headphone console. Microphones: Neumann, AKG, Sennheiser, Electro-Voice, Shure, Beyer. Monitor Amplifiers: QSC, Crown, JBL. Monitor Speakers: UREI Time Align, JBL, Bose. Electro-Voice, Auratone. Musical Instruments: Moog System 55 modular console synthesizer, Yamaha DX7 w/EI expansion, Yamaha RX11, (2) Yamaha CX5M, Kawai K5 Fournier synthesizer, Akai S612 sampler, (2) Oberheim Matrix-6, Yamaha TX7, Akai S900 sampler, Roland D-550, Kurzweil MIDIboard keyboard controller. Other MIDI Equipment: J.L. Cooper MSB+, Yamaha MJC8, Akai MIDI-controlled mixer, Opcode Studio Plus Two. Other: Apple Macintosh, Atari 1040ST, Commodore 64. Rates: \$10/hr. (with TAU I.D.), \$20/hr. Specialization & Credits: AURA is one of three studios serving The American University's Audio Technology program, the first degree program of its kind on the East Coast. Included in the equipment listings are the facilities of the electronic music studio and the AU Music Lab, an interdisciplinary performance project that has appeared at the Kennedy Center's Terrace Theater.

[16] **AVID RECORDERS**; also *REMOTE RECORDING*; PO Box 1727, Wallingford, CT 06492; (203) 284-2000. Owner: D.E. Ferrara. Manager: Loyalty Pearson.

[16] **BACKTRACKS LOCATION DIGITAL**; also *REMOTE RECORDING*; 5 School Ave., Montpelier, VT 05602; (802) 223-2551. Owner: Mike Billingsley. Manager: Geoff Brumbaugh. Specialization & Credits: Location and remote digital (SMPTe lock-to-video if desired), direct-to-digital stereo or live mix to 2 or 4 digital tracks. (Edit/mix to digital stereo master.) Extended portability with special DC package. Patented Stereo Ambient Sampling System (SASS™) for faithful reproduction of acoustic spaces and events. Specialized in highly realistic stereo reproduction, with low noise compo-

nents and specially modified equipment. We record acoustic ensembles (ethnic, folk and classical), location sound effects, keyboard samples and environmental ambience and live performances, using specially developed techniques for convincing spacial realism. House label (Straight Arrow Recordings) releases (SASS™) recorded music and effects. We also create auditory environment recordings for museums and galleries. Artists commissions welcomed.

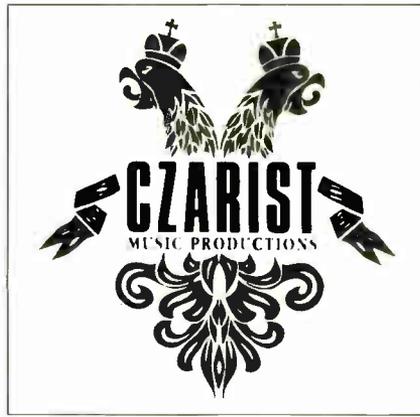
[16] **BEBOP PRODUCTIONS**; also *REMOTE RECORDING*; 1006 Brice Rd.; Rockville, MD 20852; (301) 279-0937. Owner: Bob DeWald. Manager: Marco Delmar.

[16] **CABIN FEVER RECORDING**; also *REMOTE RECORDING*; PO Box 735; Fishers, NY 14453; (716) 398-2390. Owner: Bob Potter.

[16] **CLEARCUT RECORDING**; 511-B Victor St.; Saddle Brook, NJ 07662; (201) 368-2909. Owner: Combined Media Resources. Manager: Patrick Lacey.

[16] **C.M.A. INC.**; also *REMOTE RECORDING*; 1300 E. Jefferson Blvd.; Deer Park, NY 11729; (516) 243-1212. Owner: Mark D'Agostino. Manager: Tom D'Agostino.

[16] **CREATIVE RECORDING**; also *REMOTE RECORDING*; 55 Bramhall St.; Portland, ME 04102; (207) 773-3759. Owner: Stephen MacLean. Manager: Stephen MacLean.



CZARIST MUSIC PRODUCTIONS  
Soho, NY

[16] **CZARIST MUSIC PRODUCTIONS**; 39 Mercer St., Soho, NY 10013; (212) 941-8527. Owner: Czarist Music Productions Inc. Manager: Tasso Zapanti, Christian Costantini. Specialization & Credits: A state-of-the-art music production studio located in the artistic community of SoHo. Our services include scoring and sweetening for film and video. Our MIDI and SMPTe facilities are centered around the Mac Plus. Running various software in conjunction with an array of samplers, synths and outboard gear synched to 16-track tape, we are able to achieve high-quality productions. Credits include work for PBS, MCTV and various independent film productions.

[16] **DEREK STUDIOS**; also *REMOTE RECORDING*; 850 Main St., PO Box 304; Dalton, MA 01226; (413) 684-0198. Owner: Gregory K Steele. Manager: Gregory K Steele. Engineers: Greg Steele, Max Mattoon. Dimensions: Room 1: studio 45 x 30, control room 18 x 16. Room 2: studio 10 x 8. Room 3: studio 8 x 8. Mixing Consoles: (2) Ramsa 8816 32 x 8, Tascam 8 x 2, custom 12 x 4. Audio Recorders: Tascam MS-16 16-track w/autolocator, Tascam 58 8-track w/autolocator, Otari MX-5050B MkII 2-track, Revox B77 2-track. Cassette Recorders/Duplicators: (2) Tandberg TCD-310 MkII, Akai GX-F31, Awa WX-220. Noise Reduction Equipment: (2) Tascam DX-8DS, (2) Tascam DX-4D, dbx 150 Echo, Reverb & Delay Systems: Lexicon PCM70, (2) Lexicon PCM60, Lexicon PCM42, Lexicon Prime Time II, Loft 450 delay/flanger,

ADA stereo taped delay, ADA D-1280. Other Outboard Equipment: UREI LA-4 compressor/limiter, dbx 166 gated compressor/limiter, Audioarts Model 1200 compressor/limiter, Valley People 430 dual Dyna-Mite, Valley People GateX noise gate, Valley People 415 dynamic sibilance processor, Aphex Type B Aural Exciter, (2) API 550 equalizer, (2) MXR mini-limiter, (2) MXR autolifter. Microphones: (2) AKG C-414EB, AKG D-2000, Beyers MC734, (2) Beyers M201, Beyers M250, Electro-Voice RE20, (2) Sennheiser MD-441, (2) Sennheiser MD-421, (2) Shure SM81, (2) Shure SM53, (2) Shure SM57. Monitor Amplifiers: Yamaha P2200, Harman Kardon Citation 12, assorted headphone amps. Monitor Speakers: JBL 4425, KEF 103.2, Auratone 5C, AKG headphones, Sennheiser headphones, Koss headphones. Musical Instruments: Yamaha DX-7IIIFD, Korg DSS-1, Roland D-50, Roland D-110, Oberheim Matrix-6R, E-mu SP-12 turbo sampling drum machine, Yamaha TX81Z, Rockman sustainer/chorus rack-mount, Chicking baby grand piano, 360 Systems Midi Bass, Casio CZ-101, Gibson Les Paul, Fender Precision bass. Other MIDI Equipment: Apple computers w/Sytech interface, GKS C-Thru MIDI patcher. Other: Nakamichi DMP-100 digital mastering processor, full complement of musical instrument amps.

[16] **EASTWIND RECORDING**; 6820 Elliott Dr.; East Syracuse, NY 13057; (315) 463-6759. Owner: Michael Jaffarian. Manager: Phyllis McComb.

[16] **ELECTRIC CITY SOUND**; 725 State St.; Schenectady, NY 12307; (518) 374-7433. Owner: Norman Frederick. Manager: Alan Payette.

[16] **ELECTRO-NOVA STUDIOS**; 342 Madison Ave.; New York, NY 10017; (212) 687-5838. Owner: Mark Z. Sydorak. Manager: Roger Kaniewski. Engineers: Mark Z. Sydorak, Alex Bundziak. Dimensions: Room 1: studio 28 x 17, control room 16 x 12. Room 2: studio 16 x 12, control room 16 x 15. Mixing Consoles: Roger Mayer 22 x 16 x 4 custom console, Studer 900 Series 12 x 4. Audio Recorders: Studer A80 MkII 16-track, Studer A80 4-track, (3) Studer A810 2-track, Revox PR99 MkII 2-track, (2) Revox HS77 2-track, Ampex ATR-102 2-track. Cassette Recorders/Duplicators: Telex 6120 stereo duplicator w/11 slaves, (11) Proton decks. Noise Reduction Equipment: dbx 154. Synchronization Systems: Audio Kinetics Q Lock 3.10. Echo, Reverb & Delay Systems: AKG BX-10 MkII, Lexicon PCM70 digital reverb, Lexicon PCM60, Lexicon Prime Time DDL, Ursa Major Space Station, Eventide 910 Harmonizer w/keyboard, (2) Echoplex. Other Outboard Equipment: (2) UREI LA-3A leveling amp, UREI 1178 stereo limiter, (2) Roger Mayer limiter, UREI stereo parametric equalizer, UREI digital click, Eventide PS101 phase shifter, Mutron stereo flanger, (4) Roger Mayer noise gate, (4) Roger Mayer custom cue system w/8 x 2 mixer for each musician. Microphones: (2) Neumann U87, (2) Neumann KM84, Neumann U47 tube, (2) AKG C-451, (2) AKG D-1000E, AKG D-202E, AKG D-12, (2) E-V RE20, Beyers MC736, (2) Beyers M160 double ribbon, (2) Beyers M500, (2) Beyers XIN, B&O stereo ribbon. Monitor Amplifiers: Yamaha P2200, Studer A68, Crown D-75, HK-200, Dynaco 120A. Monitor Speakers: Altec 9849B, Studer 2706, Toa, Auratone. Musical Instruments: Kurzweil 250 w/tail Mac support, Akai S900 sampler, Yamaha DX7, Casio CZ-101, (3) EML 101, EML-200, EML-416 sequencer w/polybox, Baldwin 6'3" grand piano, Moog Mini-moog w/MIDI, Moog Opus 3, Hohner D-6 Clavinet, Fender Rhodes 73, Mellotron SM-400, Roland 305 drum machine, ARP DGX, Pearl drums. Video Equipment: (2) JVC 8250 3/4" U-matic, Sony 2860A U-matic, (2) SW 100 switcher system, (2) DA100 distribution amplifier, (20) Panasonic AG-1230 commercial video recorder for VHS duplication, (2) NEC N915U recorder. Other: Magna-Tech 2036 16/35mm dual mag machine w/60cps resolver and interlock, (2) NEC 650 CD player, (25) stock music libraries, over 15,000 sound EFX. Rates: Rates upon request.

[16] **ESKIMO STUDIO**; PO Box 484; Northborough, MA 01532; (508) 366-5936. Owner: John Quinn. Manager: John Quinn. Engineers: Bill Blauer, John Quinn. Dimensions: Renovating. Mixing Consoles: Ramsa WR-T820 20 x 8, Studiomas-ter 8 into 4 8 x 4. Audio Recorders: Tascam MS-16, Toshiba DX900 PCM digital mastering, Akai GX-260D 2-track 1/4". Cassette Recorders/Duplicators: Onkyo TA-2130, JVC 340, Yamaha MT1X (4-track w/dbx). Synchronization Systems: Macintosh Plus w/Jam Box/4+ and software. Echo, Reverb & Delay Systems: DSP 128 multieffects processor, Master-Room XL-210 reverb, (2) Yamaha SPX90, Lexicon LXP-1, ADA digital delay, MIDverb, Boss DE-200 digital delay. Other Outboard Equipment: dbx 166 stereo compressor/limiter/gate, Hush IC, extensive patch bay setup. Microphones: (2) Sennheiser MD-409, U3, ATM 813R, (2) ATM 63, (2) Shure SM57, Shure SM58, Sony FK80L, Beyers M200, (2) PZM. Monitor Amplifiers: Yamaha P2150, Lafayette LA-475. Monitor Speakers: (2) JBL 4628B (mains), (2) JBL Control 5 (control room). Musical Instruments: Yamaha DX7, Yamaha TX7, Roland GM-70 guitar synthesizer, Fender Strat w/Roland GK-1 retrofit, Rickenbacker bass, Guild fretless bass, Guild S70 electric jazz guitar, Yamaha RX11 digital rhythm programmer, Yamaha B100-115 III bass amp, Ludwig 5-piece drum set, Marshall JCM-800 Lead Series guitar amp, Sundown Formula 50 guitar amp, Peavey Artist VT tube amp (Black Widow-equipped), Ibanez acoustic guitar w/pickup, various guitar effect boxes. Other MIDI Equipment: Macintosh Plus w/20MB hard drive, Finale software package and various sequencers. Soundworth Jam Box/4+. Other: AKG 240, AKG K-55, AKG K-2 and Stan-

ton SRS 225 headphones w/extensive custom headphone monitoring system. Rates: \$35 per hour; reduced rates, block rates negotiable.

[16] **FANTASIA PRODUCTIONS**; 142 Berkeley St.; Boston, MA 02116; (617) 262-4150. Owner: Fantasia Productions, Inc. Manager: Michael Paul.

[16] **FIRST IMPRESSIONS**; 15 Perkins Ave.; Brockton, MA 02401; (508) 580-1844. Owner: Mark Mantell. Engineers: Mark Mantell, John Foster. Dimensions: Studio 14 x 24, control room 14 x 14. Mixing Consoles: Allen and Heath Systems 8 16 x 8 x 2 w/16-track mon. Audio Recorders: Tascam MS-16 w/autolocator, Otari 8SD 8-track, Tascam 32 2-track, Sansui 5050 4-track stereo. Cassette Recorders/Duplicators: (2) Sanyo D-62. Noise Reduction Equipment: Rocktron Hush II, assorted gates. Echo, Reverb & Delay Systems: Lexicon LXP-1, Roland SDE-3000, Roland SDE-1000, ART DR1. Other Outboard Equipment: dbx 166, (2) Valley People Dyna-Mite, (2) Valley People Dyna-Mic, Rocktron exciter/imager, Rane 5-band parametric EQ, MXR 15-band stereo graphic EQs, Furman 3-band parametric EQ. Microphones: Sennheiser D-441, Sennheiser D-421, AKG D-12E, E-V 408, (2) Audio-Technica 33R condenser, (2) Audio-Technica ATM63, (3) Shure SM57. Monitor Amplifiers: Rane 6-channel headphone amp, Crest FA-800. Monitor Speakers: JBL, Altec, Tannoy, AR3, Control 1, Yamaha K240 headphones. Musical Instruments: Acoustic drums w/MIDI triggers and Marc MX1, Alesis HR-16 drum machine, Gibson Les Paul Deluxe, ES335, Strat w/EMGs, Roland GR-700 w/Pedulla controller, Fender Concert, Sound City 50, Roland D-50, Roland MKS-20 digital piano. Rates: Hourly, block or project rates.

[16] **GOIN' MOBILE**; only REMOTE RECORDING; 304 Newbury St. #110; Boston, MA 02115; (617) 232-7969. Owner: Lonnie Bedell.

[16] **GRAMPA STUDIOS**; 502 Warren St.; Brooklyn, NY 11217; (718) 260-9803. Owner: Mick Cantarella, Tim Cramer. Manager: Mick Cantarella.

[16] **ISLAND SOUND CO.**; 168 Railroad St.; Huntington Station, NY 11746; (516) 422-3246. Owner: John Hochuli, III. Manager: Bob Spencer.

[16] **LAUGHING DOG PRODUCTIONS, INC.**; 80 Van Duzer St.; Staten Island, NY 10301; (718) 720-9497. Owner: Bill Donnelly, Frank Duncan. Manager: Daniel Freidman.

[16] **MANHATTAN DIGITAL RECORDING STUDIOS, INC.**; also REMOTE RECORDING; 235 W. 56th St., Ste. 16-P; New York, NY 10019; (212) 262-3570. Owner: Nick Armington, Lars Lofas. Manager: Nick Armington, Lars Lofas. Engineers: Nick Armington, Lars Lofas. Dimensions: Control room 20 x 18. Mixing Consoles: TAC Scorpion 40 x 16 w/monitor EQ. Audio Recorders: Tascam MS-16 16-track 15 ips, Sony ES-500 2-track DAT mastering deck, Otari MX-50 2-track 1/4" Cassette Recorders/Duplicators: Nakamichi MR-2 Echo, Reverb & Delay Systems: Lexicon LXP-1 digital reverb, Yamaha SPX-90 multieffects, Yamaha LEX50 multieffects, Alesis MIDverb II digital reverb. Other Outboard Equipment: UREI 535 graphic equalizer, dbx 160X compressor/limiter, dbx 166 stereo compressor/limiter, dbx 463X noise gate, Furman PQ-4 parametric equalizer. Microphones: AKG 414B-ULS condenser, (2) Shure SM58 dynamic, Shure SM57 dynamic, others available. Monitor Amplifiers: Nikko Audio. Monitor Speakers: Yamaha NS-20M. Musical Instruments: Yamaha RX5 drum machine, Alesis HR-16 drum machine, Roland D-50 L/A synthesizer, Roland Juno-106 synthesizer, Akai S950 sampler, Yamaha TX81Z FM synthesizer, Guild Pilot bass, Jackson guitar, Guild acoustic guitar. Other MIDI Equipment: Atari 1040 computer w/Creator and SMPTE-track software. Video Equipment: VHS Hi-fi videocassette recorder. Other: Gallien-Krueger 250ML guitar amp, Gallien-Krueger bass amp, lots of direct boxes, AKG headphones, etc. Rates: Vary by project—always a great deal!

[16] **MIDNIGHT MODULATION**; 2211 Pine Ln.; Saugerties, NY 12477; (914) 246-4761. Owner: Michael Bitterman. Engineers: Michael Bitterman. Dimensions: Studio 20 x 20, control room 10 x 8. Mixing Consoles: Sound Workshop Series 30 20 x 8. Audio Recorders: Tascam 85-16B 16-track w/dbx, Tascam 80-8 8-track w/dbx, Otari 5050B 2-track w/dbx, Sony PCM-501 2-track digital. Cassette Recorders/Duplicators: Tascam 122. Echo, Reverb & Delay Systems: Lexicon LXP-1 w/MRC, Yamaha REV7, Yamaha SPX90, Lexicon PCM41, Marshall Time Modulator, Ursa Major 8 x 32. Other Outboard Equipment: dbx 160X limiter/compressor, UREI 1176LN limiter/compressor, Valley People Dyna-Mite, Orban 622B parametric EQ, Aphex Aural Exciter. Microphones: (2) Neumann U87, AKG 414EB/P48, (2) Sennheiser 421U, (2) Shure SM57, (2) Crown PZM, E-V RE20, RCA 77-DX, (2) Shure SM81. Monitor Amplifiers: BGW 750B, Symetrix. Monitor Speakers: JBL 4411, Yamaha NS-10M, Klipsch Heresy, Toa cubes. Musical Instruments: Yamaha 6' grand piano, Yamaha DX7II, Akai S900 sampler, Roland Super Jupiter, Kawai Kim, Linn-Drum, Gibson J-200 guitar, ARP 2600. Other MIDI Equipment: Atari 1040ST computer, Notator MIDI recorder, editor/librarians for synths. Other: Sound Ideas CD sampler library. Rates: \$35/hr., \$300/day. Specialization & Credits: We offer full production services. We are songwriters and musicians, and we can produce a session or album for you. We offer arrangers

and musicians to fit your needs. Our new "California Room" serves many purposes, and we know you'll find Midnight Mod a fun place to work. We have only raves about our studio—our clients are our best sponsors. The most beautiful and relaxed studio in the Hudson Valley has had the top people record here. We have available the finest name musicians in Woodstock for your session. John Hall, The Band, The Fugs, Jules Shear, Arnie Traum, NRBQ, John Sebastian and Gary Burke are just a few of our recent activity. The key to Woodstock recording is eclecticism—styles from jazz-folk-new wave-rock-cabaret are all handled with individual style. We are here to service the songwriters and musicians. Our track record has proven this.

[16] **MIRROR SOUND STUDIOS**; also REMOTE RECORDING; 1731 Cinnaminson Ave.; Cinnaminson, NJ 08077; (609) 829-9413. Owner: Ken Fordyce. Manager: Thomas Bitzer. Engineers: Jon Udell, Ken Fordyce. Mixing Consoles: Soundcraft Series 600 40 x 8. Audio Recorders: Tascam MS-16 16-track w/autolocator, Technics RS-1500 2-track Cassette Recorders/Duplicators: (2) Sony TC-K555, Marantz PMD-200, (2) TEAC V-437C. Noise Reduction Equipment: dbx 150. Echo, Reverb & Delay Systems: Lexicon PCM70 w/3.0 software, Yamaha REV7, DeltaLab ADM 1024, Roland SRV-2000, Yamaha SPX90II, Eventide instant flanger. Other Outboard Equipment: dbx 160, dbx 166, Symetrix 522, Omni Craft GT4, Orban 621B parametric EQ, Valley People Dyna-Mite, BBE 402 Maxie Microphones: (2) AKG 451EB, Neumann KM84, E-V RE20, (3) Sennheiser MD-421, (2) Shure SM57, AKG 224, AKG D-2000E, Shure PL9, E-V 660, (3) Crown PZM, AKG C-414EB-US. Monitor Amplifiers: BGW 7000B, Crown DC-150. Monitor Speakers: JBL 4313, Yamaha NS-10. Musical Instruments: Roland S-550 sampler, Yamaha DX7, Roland Octapads, Korg CX-3, Roland MC-500, Roland TR-707, Fender guitar amps, Roland guitar amps, Music Man HD120, Ludwig drums, Gibson, Fender, Ibanez guitars, Alesis HR-16 drum machine. Other MIDI Equipment: IBM 640K 30MB hard drive w/12 Tone's Cakewalk sequencer, Adams-Smith Zeta-3 synchronizer, Roland MKB-300 keyboard controller. Rates: Available upon request.

[16] **MUSIC FACTORY ENTERPRISES, INC.**; also REMOTE RECORDING; Ford & Washington Sts., Ste. 300; Norristown, PA 19401; (215) 277-9550. Owner: Jeffrey Calhoun. Manager: Joseph Olinick.

[16] **NEW YORK AUDIO PRODUCTIONS**; also REMOTE RECORDING; 140 W. 22nd St.; New York, NY 10011; (212) 243-6826. Owner: Paul M. Barboza. Manager: John Hirsch.

[16] **PARADOX PRODUCTIONS, INC.**; also REMOTE RECORDING; 50 Anna Ct.; Gaithersburg, MD 20877; (301) 869-9122. Owner: Mark L. Crowe, William B. Baker. Manager: Mark L. Crowe.

[16] **P.P.I. RECORDING**; 147 W. 33rd St., Ste. 308; New York, NY 10001; (212) 279-1631. Owner: Chip M. Fabrizio. Manager: Marcelo Mella.

[16] **RAMA DAM RECORDS**; also REMOTE RECORDING; 219 State Rd.; Eliot, ME 03903; (207) 439-5541. Owner: Lonnie Londin. Manager: Lonnie Londin.

[16] **RED APPLE WORX, INC.**; also REMOTE RECORDING; PO Box 441532; Fort Washington, MD 20744; (301) 292-4415. Owner: Carl W. Fletcher. Manager: Ralph E. C. Maunder. Engineers: Ralph E. C. Maunder (principal engineer), Jeff Martin, Dave Mackin, Dave Kramnic, Jesse A. Meman, Joseph Cascio. Dimensions: Room 1: studio 23 x 18, control room 13 x 11. Room 2: studio 7'6" x 7'6"; control room 5' x 5'6". Mixing Consoles: Allen and Heath CMC-32 32 x 16, Sound Workshop 1280-B 12 x 8 recording console. Audio Recorders: Fostex E-16 16-track w/Dolby C, Fostex E-2 3-track, Tascam 234-Syncasette 4-track Cassette Recorders/Duplicators: Technics RS-B905 w/Dolby B, C, dbx. Noise Reduction Equipment: Valley People Kepex II, Ashly Audio SG-33 noise gate, BBE autocal processor. Synchronization Systems: Fostex 4030/4035 synchronizer and remote. Echo, Reverb & Delay Systems: Alesis Xtic digital reverb, Orban 1113B dual reverb, Biamp MR 140 pro reverb, RDS digital delay system, Valley People Gain Brain II, Yamaha analog delay, MIDverb II. Microphones: (2) AKG C-414B-ULS acoustic condenser, (10) Electro-Voice N/D 357, (2) Nakamichi CM-100. Monitor Amplifiers: McIntosh 2105, McIntosh 2100, Bose 1801. Monitor Speakers: (2) Gauss 7258 studio monitor, (4) Toa 280-ME 3-way reference monitor, (2) Toa 265-ME 2-way reference monitor. Musical Instruments: Fender Chroma Polaris, Ensoniq ESQ-M synthesis module, Korg EX-8000 synthesis module, Yamaha TX81Z FM tone generator, E-mu SP-1200 digital MIDI sampling percussion system, Akai S900 digital MIDI sampler, Akai Vkr90, Moog Source, Korg M1 digital workstation. Other MIDI Equipment: Voyetra Sequencer Plus MkII 64-step MIDI recorder, Yamaha KX88 keyboard controller, Korg RK-100 remote MIDI controller. Other: IBM XT Turbo. Rates: \$45/hour, Studios A or B.

[16] **REEL WORLD MUSIC STUDIOS**; 12 Bardonia Mall; Bardonia, NY 10954; (914) 627-3025. Owner: Ernie Melendez. Manager: Ernie Melendez.

# N O R T H E A S T

# 12 & 16 TRACK

## STUDIOS

[16] **REEVES AUDIO RECORDING**; 21 Primrose Ave., Yonkers, NY 10710; (914) 793-6496. Owner: Jim Reeves. Manager: Jim Reeves. Engineers: Jim Reeves. Dimensions: Studio 20 x 16, control room 12 x 15. Mixing Consoles: Studiomaster II 32 x 16 x 2 x 8 FX sends w/48 inputs in mixdown, 4-band parametric EQ w/586-point patch bay. Audio Recorders: Tascam MS-16 16-track 1" w/dbx and AQ autolocator w/punch-in modification, (2) Ampex AG-440 2-track 1/4" Cassette Recorders/Duplicators: Kenwood KX2060 3-head, (2) Kenwood KX1030 3-head, Tascam 122 MkII 3-head. Noise Reduction Equipment: dbx 16-channel, dbx 155 4-channel Echo, Reverb & Delay Systems: Yamaha REV7 digital reverb, (2) Yamaha SPX90II digital reverb, Korg DRV-1000 digital reverb, (2) Yamaha D1500 digital delay, Effectron ADM 1020 digital delay, Lexicon Prime Time 93, Korg SDD-2000 sampling digital delay, ART MultiVerb digital reverb, Korg DRV-3000 digital reverb. Other Outboard Equipment: Eventide H910 Harmonizer, Aphex Aural Exciter, (2) MXR flanger, (6) Roger Mayer RM-68 noise gate, (2) MXR mini-limiter, dbx 160 limiter, (2) dbx 160X limiter, (2) dbx 263 de-esser, assorted graphic equalizers, dbx 166 dual compressor/expander, Furman PQ-6 stereo parametric equalizer, dbx 120X-DS subharmonic synthesizer. Microphones: Neumann U67 tube condenser, Neumann U87 FET condenser, Neumann KM84 condenser, Sennheiser 441, (2) E-V RE20, (10) Shure SM57, (2) Shure SM58, AKG 414EB, AKG D-224E, AKG D-58E, (2) Crown PZM plate mic, (2) Countryman 85 FET DI, (6) Sesscom SM-10 DI, assorted transducers. Monitor Amplifiers: Crown DC-300, Marantz 16, (2) Kenwood. Monitor Speakers: Altec 848A control room monitors, Yamaha NS-10M studio, Visikon David 8001 near-field monitors, (8) Auratone 3C, Fostex T20, AKG 141 headphones. Musical Instruments: Atari 1040ST computer, SC 1224 color monitor, Steinberg Pro-24 III sequencer, Weber 6' grand acoustic piano, Roland D-50 linear synthesizer, Casio CZ-101 synth, (2) Oberheim DMX drum machine, Ludwig 5-piece drum kit, Remo snare, Zildjian cymbals, Fender Deluxe guitar amp, Ampeg B-15 bass amp, SMPTE City, SMPTE/IDI song pointer, Roland D-110 multitrack synth, J.L. Cooper MSB+ MIDI patch bay. Video Equipment: Sony U-matic 3/4" videocassette playback, JVC HR2200U 1/2" VHS, DuMont 1/2" stereo VHS, Panasonic WV3300 color camera, Panasonic PV420 VHS camcorder. Other: Separate vocal booth, drum booth, piano room and guitar room for optimum isolation. Rates: \$45/hr.

[16] **ROAR PRODUCTIONS RECORDING AND MUSICAL SERVICES**; also *REMOTE RECORDING*; 6655-H Dobbin Rd., Columbia, MD 21045; (301) 596-2600. Owner: Steven Rosch. Manager: Larry Adler.

[16] **SEAGULL STUDIOS—A SERVICE OF WSCL RADIO**; also *REMOTE RECORDING*; Salisbury State University, Salisbury, MD 21801; (301) 543-6895. Owner: Salisbury Foundation, Inc. Manager: Tony Broadbent. Engineers: Tony Broadbent (chief engineer), Bruce Blanchard. Dimensions: Room 1: studio 28 x 28, control room 12 x 17. Room 2: studio 14 x 18, control room 12 x 17. 200-seat music hall to main control. Mixing Consoles: MCI 618 18 x 16. Audio Recorders: Tascam MS-16 16-track 30 ips, Panasonic SV-3500 2-track DAT, (2) Otari MX-5050 MkII 2-track. Cassette Recorders/Duplicators: (2) Tascam 122 MkII. Synchronization Systems: SMPTE hookup to adjacent television studio. Echo, Reverb & Delay Systems: (2) Yamaha REV7, DeltaLab delay, Digitech delay, MiniVerb. Other Outboard Equipment: Orban 424 compressor/limiter, Symetrix compressor/limiter, (4) Gain Brain, (8) Kepex gate, (2) Rane 31-band EQ. Microphones: (2) Neumann U47, (4) Neumann U64, (4) E-V RE20, (2) Shure SM7, (2) Crown PCC-160, (4) E-V N/D 357, (4) Shure SM57, (5) Shure SM58. Monitor Amplifiers: (2) Crown D-150A, QSC 1080. Monitor Speakers: (2) JBL 4411, (2) Yamaha NS-10, (2) JBL 4301, (2) Community CS-35. Musical Instruments: Steinway 7' grand, Yamaha DX7.

[16] **SING SING SING STUDIOS, INC.**; also *REMOTE RECORDING*; 37 Iroquois Rd., Ossining, NY 10562; (914) 941-9476. Owner: Ira Lichtenstein. Manager: Ira Lichtenstein. Engineers: Ira Lichtenstein. Dimensions: Room 1: control room 13 x 10. Room 2: live room 16 x 15. Room 3: drum booth 9 x 8. Room 4: vocal booth 6 x 5. Mixing Consoles: Yamaha RM1608 16 x 8, Studiomaster 8 x 4. Audio Recorders: Fostex B16 16-track w/internal Dolby C 15 ips, Otari MX-5050BII 2-track 7.5 and 15 ips, Panasonic PV1740 2-track VHS Hi-Fi w/internal dbx. Cassette Recorders/Duplicators: Denon DR-M4 w/Dolby B/C, Akai HX-A3X w/Dolby B/C and dbx, Akai GX-912 w/Dolby B/C. Synchronization Systems: Fostex 4050 autolocator/SMPTE processor, Linn 9000 w/SMPTE. Echo, Reverb & Delay Systems: Yamaha REV7 digital reverb, (2) Yamaha SPX90 digital effects processor, Yamaha R1000 digital reverb, Roland SDE-3000 digital delay. Other Outboard Equipment: dbx 166 stereo compressor/limiter/noise gate, dbx 160X over-

easy compressor/limiter, Omni Craft GT-4 Quad noise gates, Rane RE-27 real-time EQ, Rane GE-27 graphic EQ, Rane HC-6 headphones console, Scholz Bass Rockman. Microphones: (3) AKG 414EB/P48 condenser, Beyers M500 ribbon, Ibanez ID-552 dynamic, (2) Countryman direct box, Scholz Rockman IIB. Monitor Amplifiers: Perreux 3150, Crown D-75. Monitor Speakers: (2) UREI 809 Time Align, (2) Yamaha NS-10M, (2) Auratone 5C, (2) Auratone T6, (2) E-V Sentry 100EL. Musical Instruments: Linn 9000 digital drums/seq., Ensoniq Mirage digital sampling keyboard w/complete library, Yamaha DX7 FM digital synthesizer, Sequential Circuits Prophet-5 analog synthesizer w/polysequencer, (2) Yamaha FB-01 FM digital synthesizer module, 360 Systems Midi Bass, Hardman baby grand piano, electric and acoustic guitars, electric basses, Fender Rhodes Suitcase 73 electric piano, Yamaha series drums and percussion. Other MIDI Equipment: Korg MIDI thru box, Casio 2-channel MIDI thru box, IBM PC XT personal computer w/Texture, Vision, Personal Composer, Pyramid software. Rates: Upon request.

[16] **SOUND LAB PRODUCTIONS**; 1203 Yellowstone Dr.; Newark, DE 19713; (302) 731-0204. Owner: Roger Hoilman. Manager: Roger Hoilman. Engineers: Roger Hoilman, Mike Osier, John Sarro. Dimensions: Room 1: control room 14 x 18. Room 2: studio 16 x 20. Room 3: studio 8 x 7. Mixing Consoles: TAC Scorpion 24 x 16. Audio Recorders: Otari MX-70 16-track 30 ips, Otari MX-5050 2-track, Toshiba DX-900 2-track digital. Cassette Recorders/Duplicators: Nakamichi BX-100, Akai HX-A1. Synchronization Systems: Opcode time code machine, Adams-Smith System 2600. Echo, Reverb & Delay Systems: Lexicon PCM70, Yamaha REV7, Alessis Microverb, Yamaha SPX90, Korg SDD-3000, Roland SDE-3000, Lexicon LXP-1. Other Outboard Equipment: SAE 2800 stereo parametric equalizer, Biamp EQ2100 stereo graphic equalizer, Omni Craft GR-4 noise gate, MXR dual limiter, Drawmer DS-201 gate, Aphex Systems Type C Aural Exciter. Microphones: Neumann U87, AKG C-414EB, Sennheiser 441, Sennheiser 421, AKG D-12E, E-V RE20, Countryman Isomax II, Crown PZM, Shure SM57, Shure SM58, Shure SM81. Monitor Amplifiers: Yamaha P2200, custom cue amp and network. Monitor Speakers: UREI 809 Time Align, Wenger ALS 1104, Yamaha NS-10, Auratone 5C. Musical Instruments: Yamaha 5-piece drum kit w/Zildjian and Paiste cymbals, Roland Octapad and 8-piece MIDI drum pads, Akai S900, Roland MKS-30 analog synth modules, Yamaha TX802, Yamaha TX81Z, Yamaha MC1 MIDI guitar system, Fender Stratocaster guitar, Fender Jazz bass, Fender acoustic guitar, Alessis HR-16 drum machine, Roland D-50, Roland S-550, Oberheim Matrix-1000, Kurzweil K2500 fully loaded w/ABC, sampling and separate outs. We have extensive sound libraries for all synths and samplers. Other MIDI Equipment: Roland MC-500 MIDI sequencer, Yamaha MJCB MIDI junction controller, J.L. Cooper MIDI blender/merger, Opcode Studio Plus Two MIDI interface. Video Equipment: Panasonic recorders and cameras, Toshiba DX-900 Hi-Fi VCR. Other: Macintosh SE w/20MB hard drive, Mark of the Unicorn Performer/Composer software, Digidesign Sound Designer for Akai S900, Digidesign Softsynth, Opcode MIDIRack editor/librarians: D-50, DX7II/TX802, TX81Z. Rates: Call for information.

[16] **SOUND LAB STUDIOS—STAR STRUCK PRODUCTIONS**; 80 Souhegan St., PO Box 341; Milford, NH 03055; (603) 673-9375. Owner: Arnie Ashford, Mike Clark. Manager: Arnie Ashford. Engineers: Mike Clark, Arnie Ashford. Dimensions: Room 1: studio 25 x 30, control room 15 x 20. Mixing Consoles: Ramsa WR-T820 20 x 8 x 2. Audio Recorders: Otari MX-70 16-track, Sony PCM-2500 2-track DAT, Tascam Model 32 2-track 1/4", Sharp VCH64U 2-track VHS. Cassette Recorders/Duplicators: Nakamichi BX-300. Noise Reduction Equipment: (2) dbx 563X single-ended. Echo, Reverb & Delay Systems: (2) Yamaha SPX90 multieffects processor, Roland DEP-5 multieffects processor, Lexicon PCM60 digital reverb, DeltaLab Effectron ADM-1024 digital delay, Ibanez DM-2000 digital delay. Other Outboard Equipment: (2) dbx 160X compressor/limiter, Aphex Type C Aural Exciter, dbx 263X de-esser, Yamaha GC2020 stereo compressor/limiter, Furman PQ-3 parametric equalizer, Furman ON-4 noise gate, Yamaha EQ500U stereo 10-band equalizer/spectrum analyzer. Microphones: AKG 414, Sennheiser 421, (7) Shure SM57, (4) Shure SM58, Beyers M500, Electro-Voice BK1. Monitor Amplifiers: Carvin DCA-800, Rane HC-6-headphone. Monitor Speakers: Yamaha NS-10M, JBL 4312, (4) AKG K-240 headphone. Musical Instruments: Hammond B 2 w/Leslie, Carvin V-220T guitar, Guild Pilot bass, Ibanez 6-string acoustic, Alessis HR-16 drum machine, Tama 7-piece drum kit w/Zildjian and Sabian cymbals. Other: Yamaha CDX2 compact disc player. Rates: Please call for rates.

[16] **SOUNDSCAPE RECORDING STUDIO, INC.**; also *REMOTE RECORDING*; PO Box 176; Poughkeepsie, NY 12602; (914) 485-2202. Owner: Robert and Susan Sanderson. Manager: Robert Sanderson. Engineers: Robert Sanderson, Noel Gould, guests welcome. Dimensions: Studio 20 x 40, control room 18 x 18, (2) iso booths 10 x 10. Mixing Consoles: Soundcraft 6000 28 x 24 w/full patch bay, Hilli Multitmix 6 x 4. Audio Recorders: Tascam MS-16 16-track w/autolocator, Otari 5050BII 2-track w/dbx. Cassette Recorders/Duplicators: (2) Yamaha C300, (2) Mono 1 x 1 duplicator. Noise Reduction Equipment: M516 equipped w/dbx, dbx 150. Echo, Reverb & Delay Systems: Klark-Teknik DN780, Eventide H949 Harmonizer, Yamaha REV7 reverb, ART DR2-A reverb,

(4) Korg SDD-2000 delay, ADA D-640 delay, Marshall 1502 Time Modulator. Other Outboard Equipment: (2) Valley People 6.10 compressor/limiter/gate, (4) GT-4 noise gate, (2) dbx de-esser, Aphex Type B Aural Exciter, Soundcraft 1/2- and 1/3-octave stereo EQ, BBE 802 processor. Microphones: AKG D-112, AKG The Tube, AKG 414, (3) AKG 460B, AKG 451, (4) Sennheiser 421, Sennheiser 441, E-V RE20, RCA 77-DX, (3) Shure SM57, (2) Countryman direct box, (2) Zeus direct box, AKG C-535 lavaliere, others available. Monitor Amplifiers: Perreux 6000B (control mains) 350W/ch, Yamaha P2250, Auratone, Pioneer Spec II (studio) 250W/ch. Monitor Speakers: Tannoy Little Gold monitors w/Kimber cable, JBL 4312, JBL 4313, Auratone, (15) AKG 240 headphone, (5) Koss headphone, Fostex T20. Musical Instruments: Korg digital sampling grand piano, Fender Rhodes 73 Suitcase piano, Ampeg B-15 bass amp, Simmons SDS-9 kit, Simmons SDS-1 pad, Simmons MTM trigger conditioner, Cosmic 5-piece acoustic kit w/Barcus-Berry triggers and cymbals specially chosen for studio work, Fender Bassman, Marshall 50-watt tube stack. Video Equipment: Associated w/Ballantine Communications for multicamera shoots and video post-production. Other: Of course we will rent anything you need and will joint-venture for large-scale studio or remote projects. Rates: \$45/hr. (1-5 hours), \$35/hr. (blocks of 10 or more), plus tape and tax.

[16] **SPIDER SOUND STUDIOS**; also *REMOTE RECORDING*; Box 74, Turnpike Rd.; Sennett, NY 13150; (315) 253-7591. Owner: Mike Dwyer. Ron Thompson. Manager: Ron Thompson.

[16] **STAR BASE STUDIO**; 41-53 53rd St., Woodside, NY 11377; (718) 476-0665. Owner: Chuck Thompson. Manager: Chuck Thompson. Mixing Consoles: Amek TAC Scorpion 32 inputs 16-track monitoring, Roland M-160 16 x 2 line mixer, UREI 1620 music mixer. Audio Recorders: Otari MX-70 16-track, Otari 2-track, TEAC 33405 4-track, Tascam 32 2-track. Cassette Recorders/Duplicators: Sony TC-WR930 double deck, Bang & Olufsen BE 2200, Marantz 5420. Noise Reduction Equipment: (2) Symetrix 511A, dbx 150. Synchronization Systems: Akai MPC-60. Echo, Reverb & Delay Systems: Lexicon PCM70, Lexicon PCM60, Yamaha REV7, (2) Yamaha SPX90, Alessis MIDIVerb II, DeltaLab Super Time Line, DeltaLab Effectron II, Furman RV2 spring reverb, Roland SRV-2000, Roland SRV-3000. Other Outboard Equipment: (2) dbx 160X, (2) Drawmer DS-201 dual gate, (2) dbx 166, UREI 1176LN, Loft 400 quad gate/limiter, Furman PQ-6 parametric EQ, MXR 1/2-octave graphic EQ, (2) MXR 1/3-octave stereo EQ, Eventide H3000 Harmonizer, Aphex Type C Aural Exciter, (2) Technics 1200 turntable, BBE 802. Microphones: Neumann U89i, AKG 421, (5) Shure SM58, (2) Shure SM57, Shure SM77, (4) E-V D054, E-V RE20. Monitor Amplifiers: Crown DC-300, Crown D-75, JBL 6260, QSC 5.1, QSC 3.7. Monitor Speakers: (2) Yamaha NS-10, (2) JBL 4412, (2) E-V MS802. Musical Instruments: Linn LM1, Casio FZ-1 sampler, Yamaha DX7, Casio CZ-1000, Yamaha TX81Z, (2) Yamaha FB-01, Roland MKS-20, Roland MKS-10, Roland MKS-70, 360 Systems Pro Midi Bass, Roland MT-32, Ludwig drum set. Fender custom Strat guitar, Ovalation 12-string, Guild StarFire guitar, Ibanez bass guitar, Peavey 130 Classic Chorus guitar amp, Fender Rhodes Suitcase 88, Fender Twin Reverb amp, Acoustic 270 stack amp, Ampeg SVT bass amp, Casio FZ-1, Ovalation 6-string. Other MIDI Equipment: Roland MC-500 sequencer, (2) Casio TB-1 MIDI thru box, Roland MPU-104, Akai MPC-60. Video Equipment: Panasonic AG-7300 1/2" Super VHS, Panasonic AG-A750 editing controller, Panasonic AG-7500 editing VCR, (2) CT-1331Y monitor 13". Other: (8) AKG K240 headphones, ADC SS-425X computer-memory frequency EQ/analyzer, Scholz Rockman X100 guitar, Scholz Rockman stereo echo, Scholz Bass Rockman, Scholz Rockman sustainer, Scholz Rockman stereo chorus, (3) Simmons cue box. Rates: Call for rates.

[16] **STRATA STUDIOS**; 1215 MacDade Blvd.; Folsom, PA 19033; (215) 237-8134. Owner: Dennis Naro.

[16] **STUDIO UNICORN**; also *REMOTE RECORDING*; 109 Lenox Ave.; Bridgeport, CT 06605; (203) 333-0736. Owner: Paul Avgerinos. Manager: Paul Avgerinos. Engineers: Robert Wyman, Andre Booth, Paul Avgerinos. Dimensions: Room 1: studio 24 x 14, control room 18 x 12. Mixing Consoles: Allen and Heath COM2C4 40 x 16 x 2. Audio Recorders: Fostex B16 16-track, Sony DTC-1000ES 2-track DAT, Tascam Model 32 2-track 1/4" analog. Cassette Recorders/Duplicators: Nakamichi MR-1 2-track three-head, Yamaha 2-track, TEAC 2-track. Noise Reduction Equipment: dbx Type I (2-track), Dolby C (16-track) Synchronization Systems: Fostex 4050 reads/writes SMPTE/MIDI, locks B16 to sequencer, video, enables live MIDI mixdown w/tape for 31 tracks. Echo, Reverb & Delay Systems: Lexicon PCM70, (3) Yamaha SPX90, Roland SRV-2000 reverb or digital delay, Roland SDE-1000 digital delay, ADA 2FX delay line +. Other Outboard Equipment: (12) noise gate, (2) dbx 160X compressor, Aural Exciter. Microphones: AKG 414, AKG 451, AKG D-12E, (3) Sennheiser 421, (3) Shure SM57, Shure SM58, Beyers Mki. Monitor Amplifiers: (2) Yamaha Monitor Speakers: UREI 809, JBL 4406. Sony Musical Instruments: KX-88 weighted controller, Yamaha TX816, (8) Yamaha DX7, Roland D-50, Roland Super JX rack-mount, Kurzweil 1000PX, Akai S900, E-mu SP-12, Roland S-50, Yamaha TX802, Steinberg gear bass w/fretted/fretless fingerboards and EMG expander, Ibanez Roadstar II guitar w/ Floyd-Rose. Other MIDI Equipment: Yamaha MJCB MIDI mapping box, Atari 1040ST w/3MB RAM and 20MB hard drive, Passport

Master Tracks Pro sequencer V. 2.5, Hybrid Arts GenPatch and DX-Droid. Other: GK 800RB biamp w/18" E-V and 2-12" E-V bass rig, (2) Countryman D.I., Electro-Harmonix Bass synth, (5) various pedals. Rates: \$40/hour.

**[16] SUNSET RIDGE RECORDING;** 194 Kensington Rd.; Hampton Falls, NH 03844; (603) 926-2907. Owner: Christopher Biggi. Manager: Christopher Biggi. Engineers: Christopher Biggi. Dimensions: Room 1: studio 15 x 25, control room 13 x 13. Mixing Consoles: Ramsa WR-T820 20 x 8, 2, Fostex Model 450 8 x 4 x 2. Audio Recorders: Fostex E16 16-track, Fostex ABLR 8-track, Fostex A2 2-track, (2) Kodak MV55000 PCM 2-track digital. Cassette Recorders/Duplicators: Tascam 122, Tascam 225, TEAC 124. Noise Reduction Equipment: Dolby C built-in E16, A8. Synchronization Systems: Fostex 4050 autolocator. Echo, Reverb & Delay Systems: Lexicon PCM70 w/MIDI controller, (2) Yamaha SPX900 effects processor, Roland SRV-2000 digital reverb, DiGiTech DSP 128 digital signal processor, Korg DD-1200 delay unit. Other Outboard Equipment: Barcus-Berry 802 sonic processor, Rocktron exciter/imager/hush, dbx 166 stereo compressor, (8) Audio Logic noise gate, DOD Electronics 431 30-band EQ, Rane HC6 headphone controller, Ibanez DM-2000 delay, (2) DOD Electronics 825 compressor/limiter, DiGiTech Smart Shift intelligent pitch shifter. Microphones: AKG C-414, (2) E-V RE20, (3) Audio-Technica AT813R, (3) E-V N/D 308, (2) Shure SM57, E-V RE11, Beyers M160, (2) E-V PL9, (2) E-V PL5, (4) Beyers M200, assorted mics. Monitor Amplifiers: AB Electronics 900A, Yamaha M-40. Monitor Speakers: Auratone, Yamaha NS-10 studio, AMR M-312 phased reference monitor, Snell Acoustics Model A. Musical Instruments: Alesis HR-16 drum machine, Roland JX-8P polyphonic synthesizer, Baldwin Spinnet, (3) assorted Casio keyboards. Rates: Call for rates.

**[16] SYNTUNE;** 85 Carl St.; Newton, MA 02161; (617) 244-1265. Owner: Rob Ames. Manager: Rob Ames.

**[16] TARGET;** also REMOTE RECORDING; 801 Valley Rd.; Newark, DE 19711; (302) 731-4431. Owner: Marc Moss. Manager: Keith Moss.

**[16] TECHNISOUND PRODUCTIONS, INC.;** 140 Madison Ave.; Westfield, NJ 07090; (201) 233-2026. Owner: Stephen Kay. Manager: Stephen Kay. Specialization & Credits: Records, film scores, jingles, demos and session work featuring a fully loaded Fairlight Series III, the state-of-the-art 16-bit digital synthesizer/sampler/audio production device. Recently updated with REV7 software and hardware, the system now features 16MB RAM, 8-track direct-to-disk digital recording and over 400MB of instant-access disk storage. Gigabyte sound library, from orchestral to dance/pop/rap. Fully equipped 16-track studio/MIDI control center, 48-input TAC Scorpion, Tascam 1" MS-16 w/dbx, Tons O' Digital FX, UREI 811C monitors, DX71FD w/1,500+ sounds, TX802 rack, Prophet-VS rack, 7.4" Yamaha grand, two vintage customized ARP 2600s, Macintosh Plus w/Passport and Opcode software, digital mixdown, more. Complete your master-quality project in-house (production, composition and arrangement available) or do pre-production for transfer to a larger facility. Will travel with Fairlight III and rack to location of your choice for session work. Fifteen years of professional experience. Credits include Julius Hargett (Virgin Records), Charlie Singleton (Epic), Grand Master Flash, NBC (Olympics, Wimbledon, ROMA '87), Pepsi-Cola, Gianettino Meredith Advertising, Sid Woloshin Inc., Resorts International Casino, TKR & OK Cable, Gitano, Sound Genesis Corporation. Call for more information and a demo tape.

**[12] THUNDERBIRD SOUND STUDIOS;** also REMOTE RECORDING; 976 Annapolis Rd.; Gambrills, MD 21054; (301) 674-8740. Owner: Chuck Hasley. Manager: Chuck Hasley.

**[16] THURSDAY PRODUCTIONS;** also REMOTE RECORDING; 189 Norman Rd.; New Rochelle, NY 10804; (914) 235-7505. Owner: Daniel M. Welsh. Manager: Susan J. Welsh. Engineers: Daniel M. Welsh, Len Fasset. Dimensions: Studio 23 x 16 w/movable ceiling-to-floor gobos, drum booth 11 x 6 w/floating floor, control room 12 x 11. Room 2: studio 10 x 8, control room 10 x 12. Mixing Consoles: Tascam M16 24 x 8, Carvin MX1202 12 x 2 remote board, Ramsa 812 12 x 8. Audio Recorders: Tascam 85-16 16-track full dbx, Tascam 80-8 8-track full dbx, (2) Ampex 440C 2-track/4-track mono, (2) Otari 5050BII 2-track, Otari 5050B mono, (2) Otari MTR-10 2-track master. Cassette Recorders/Duplicators: (4) Tascam 122B master, Sony TCM-5000, Telex CDM-4 high-speed dup. Echo, Reverb & Delay Systems: Lexicon PCM60, Lexicon Prime Time, Master-Room XL305, Orban stereo reverb, MXR II digital delay w/full memory, ART ProVerb, Orban 111B dual reverb system. Other Outboard Equipment: dbx limiter/comp, UREI limiters, Ashly parametric EQ, Orban 25FX, Aphex B Aural Exciter, MXR graphic EQ, Valley People line amps, Aphex Studio Dominator limiters, Alesis MIDverb II. Microphones: Sennheiser 414, E-V RE20, Sennheiser 441, Shure SM58, Shure SM57, Shure SM80, Crown PZM, Neumann U87, AKG 414B-ULS. Monitor Amplifiers: McIntosh 2120, Crown G-150, JVC JAS41, Halfer power amp. Monitor Speakers: JBL 4312, Auratone, Yamaha NS-10M studio version, Tannoy PBM-8. Musical Instruments: Baldwin custom upright piano, Yamaha DX7, Synergy, Roland Juno-106, Simmons drums, E-mu Drumulator, Ludwig drums, (3) full-cik snares, Roland MKS digital piano, Yamaha TX216 rack, Korg DD-1 digital drums, Korg voice processor. Other MIDI Equipment:

All MIDI interfaces with: Atari 1040 computer w/several programs, Tascam 501 disc player, complete CD sound effects library. Rates: Available upon request, block discounts available. Specialization & Credits: Thursday Productions continues its solid commitment to offer a relaxed yet creative recording environment capable of handling a wide variety of audio projects. Our engineers are more than just button pushers; they are a dedicated core of talented people who know audio and know how to make a client's project shine. Attention to detail is imperative—no aspect of the production chain is overlooked. Thursday has become an industry leader in creating soundtracks for education. Recently we delivered our 300th master to a client. Some ten years ago we delivered our first master... to the same client! Our long-term success with this, and others, is product consistency, year after year. It's nice to know our clients have recognized our studio for its innovative approach in bringing ideas to reality. As we enter our next ten years we are pleased to announce the opening of our Voice Production Studio B. As our client base continues to grow, so does our studio.

**[16] T.M.P. RECORDING;** Rt. 73 and Jackson Rd.; Berlin, NJ 08009; (609) 768-2226. Owner: Tom DiGangi. Manager: Pete Devine. Engineers: Greg Donato, Anthony RiccoBono, Lenny DiGangi. Dimensions: Room 1: studio 16 x 16, control room 20 x 20. Room 2: studio 8 x 8. Room 3: studio 6 x 8. Mixing Consoles: Tascam M520 20 x 8, Tascam M320 20 x 4 submixer. Audio Recorders: Tascam MS-16 16-track, Tascam 38 8-track, Tascam 32 2-track. Cassette Recorders/Duplicators: Tascam 112, (2) TEAC W4600 duplicator, (2) Tascam 225. Noise Reduction Equipment: dbx DX8DS 16 tracks, (2) dbx 224. Synchronization Systems: Yamaha MSS-1, J.L. Cooper PSS-1, Atari computer w/Dr. T's Phantom. Echo, Reverb & Delay Systems: Roland DEP-5, Roland DEP-3, Roland SRV-2000, Korg DRV-2000, Korg SDD-2000, ADA 1.28I, DOD Electronics RDS 3.6, Ibanez SDR-100+, Yamaha SPX900I, Korg DRV-3000. Other Outboard Equipment: TEAC PD-200 compact disc, (2) PH-40 headphone amp, (2) ART 172 EQ, (7) Tascam PB-32 patch bay (224 patch points), (2) dbx 160X compressor, dbx 166 compressor, (8) Audio Logic gate, Barcus-Berry Sonic Maximizer, Audio Logic Psycho-Acoustic, Scholz Rockmodules, Roland GP-8, Rane SP15 parametric, Yamaha SPX50D. Microphones: AKG 414, (6) Shure SM58, (8) Shure SM57, (4) Sennheiser MD-421, (2) Toa K3, Toa K4, (2) Toa K2, (2) E-V ND308, (2) E-V ND357, (2) E-V ND757, (2) E-V BKI, Crown PZM, Crown GLM. Monitor Amplifiers: (2) Soundcraft RA5502, (2) Crown Micro-Tech. Monitor Speakers: Tannoy SRM 12-B, Toa 312ME, Toa 265ME, Tannoy PBM-8, Tannoy PBM-6.5. Musical Instruments: Yamaha DX71FD, Korg M1, Korg DSS-1, Korg DSM-1, Yamaha TX802, Yamaha TX812, Yamaha FB-01, Yamaha 2000, Korg DDD-5, Roland D-550, Roland S-550, Yamaha WX7, Yamaha RX5, Roland MT-32, Roland D-50, Roland S-50, Simmons SDS-1000, Roland TR-505, Roland TR-626, Alesis HR-16, Korg DRM-1, Tama 8-piece drum set, Yamaha G10, Yamaha TX16W, Roland P-330, Roland D-110, Roland Octapad II, Roland R-8, Oberheim Matrix-1000, Roland U-110. Other MIDI Equipment: Yamaha MJCB, J.L. Cooper MSB, Roland VP-70, Roland MC-500. Other: (8) AKG K2400DE, IBM, Macintosh and Atari computers w/sequencing software. Rates: Block rate available, call for information.

**[16] WESTRAX RECORDING STUDIOS;** 484 W. 43rd St.; New York, NY 10036; (212) 947-0533. Owner: Peter Link. Manager: Maurice McKinley. Engineers: Todd Anderson, Jeremy Harris, Jesse Plumley, Laura Fried, Claude Achille. Dimensions: Studio 17 x 24, control room 17 x 20. MIDI room 16 x 12. Mixing Consoles: Sound Workshop Series 30 36 x 16, Soundcraft Series 200 B, Roland M-240. Audio Recorders: Tascam 85-16B 16-track 1", Otari MkIII 8-track 1/2", Otari MTR-12 2-track 1/4" and 1/2", Technics 1520 2-track 1/4", (2) Revox A77 2-track 1/4", Sony 501 2-track digital Beta. Cassette Recorders/Duplicators: (2) Tascam 122, Tascam 122 MkII. Noise Reduction Equipment: dbx 16, dbx 8-track, dbx 2-track. Synchronization Systems: Tape-to-sequencer, Roland SBX-80. Echo, Reverb & Delay Systems: (2) Yamaha REV7, Ecoplate III, Lexicon PCM42, Korg SDD-2000, Yamaha SPX900I, Lexicon PCM70, Ibanez SDR-1000, ART ProVerb. Other Outboard Equipment: dbx 160X compressor/limiter, (2) UREI 1176LN peak limiter, (2) Drawmer noise gate, Aphex Compeller compressor, Pultec EQ-H2. Microphones: (2) Neumann U87, (2) AKG C-12, (2) AKG 414, (2) AKG 451, (2) AKG 535, E-V RE20, (2) Sennheiser 421. Monitor Amplifiers: Halfer 220, Ashly FET-200. Monitor Speakers: (2) JBL 4313B, (4) Yamaha NS-10. Musical Instruments: Yamaha 6' grand piano, Gretsch drums, Yamaha DX7, (8) Yamaha TX816, Oberheim OB-Xa, Korg Poly-800, Roland S-50 sampler w/CRT display, E-mu SP-12 sampling drum machine, LinnDrum, Yamaha DX-71FD, Roland S-550 sampler, (2) Roland D-550, Alesis HR-16 drum machine, Korg M1R module. Other MIDI Equipment: (2) IBM AT, Voyetra MkIII sequencer plus, Voyetra Patch Master 2.0, J.L. Cooper MSB 16/20. Video Equipment: Sony Betamax Rates: Please call for rates. Discounts available.

**[16] WIDENER UNIVERSITY RECORDING STUDIO;** also REMOTE RECORDING; 14th & Chestnut Sts.; Chester, PA 19013; (215) 499-4338. Owner: Widener University. Manager: John Vanore. Engineers: Terry Hoffman, John Vanore. Dimensions: Studio 40 x 50 x 16 (tiered floor and ceiling), control room 18 x 20. Mixing Consoles: NEOTEK 1E 22 x 16, Hill Remix, Hill Multmix. Audio Recorders: Otari MX-70 16-track, Studer 810 2-track, Technics 1500 2-track, Sony 701 2-track

digital, Sony 501 2-track digital, Sony F1 2-track digital. Cassette Recorders/Duplicators: Aiwa 770. Noise Reduction Equipment: dbx for multitrack, Dolby A for 2-track, Dolby SR for 2-track. Echo, Reverb & Delay Systems: (2) Lexicon PCM-70, Lexicon PCM60, Yamaha REV7, (2) Lexicon PCM42, Ursa Major StarGate 626, Yamaha SPX900I. Other Outboard Equipment: Valley People Gain Brain, Valley People Kepex, Orban 424 compressor/limiter, Symetrix 522, Ashly parametric equalizer, Aphex Compeller, Acoustilog image enhancer, (2) Tubetech program equalizer, (2) Tubetech compressor, Aphex 612 exp/gate, BBE 822. Microphones: Neumann TLM170, Neumann U87, Neumann KM84, AKG The Tube, AKG 414P48, AKG 224, AKG 222, AKG 202, AKG D-12, RCA 77-DX, RCA 44, RCA BK11, Sony C-37P, Sony 989, Sony ECM-56, Sennheiser 421, E-V RE20, Crown PZM, Beyers M500, Countryman D-box, Speiden SF-12, Sennheiser MKH-20, Sennheiser MKH-30. Monitor Amplifiers: Halfer, Crown, Yamaha. Monitor Speakers: Tannoy, Spica TC-50, Yamaha, JBL. Musical Instruments: Baldwin grand piano, Yamaha PF-15 digital piano, Yamaha DX7 digital synthesizer, drum set, timpani, xylophone. Video Equipment: Studio is suitable for a video shoot. Rates: Call.

## LIVE · SOUND

—FROM PAGE 125, GRAMMYS

thoughts as well as the smoothness of the whole production. He started out mixing rock concerts and now is a CBS production engineer, where he usually handles sound for game shows.

The Grammys included 19 different performances, with 14 live performances by individuals backed by their own group or the 60-piece symphony orchestra. Five performances were live-to-track. Eighteen wireless mics were in use, both handheld and lavalier; everything was split three ways (monitors, house and TV truck) except the orchestra.

During rehearsal, Abbott tried to find optimum settings to minimize EQ changes during the show. Stage monitor level was controlled so as to be satisfactory for the artists, but not to be picked up by the mics (so the monitors were not heard on the televised feed). Abbott deter-

—CONTINUED ON PAGE 183

## SOLUTION TO MARCH MIX WORDS



# 4 & 8 TRACK

## STUDIOS

[8] **AIRBORN RECORDING STUDIO**; also *REMOTE RECORDING*; 3 Westside Dr., Exeter, NH 03833; (603) 778-7010. Owner: Bruce J. Gaultie. Manager: Bruce J. Gaultie.

[8] **AUDIBLE IMAGES**; also *REMOTE RECORDING*; 22 Cambria Point, Pittsburgh, PA 15209; (412) 821-2648. Owner: Jay O. Dudt. Manager: Jay O. Dudt.

[8] **AUDIO ARTS RECORDING STUDIO**; also *REMOTE RECORDING*; 1110 Emerald Ln., Endwell, NY 13760; (607) 786-5881. Owner: Michael Putrino, Greg McQuade. Manager: Greg McQuade, Michael Putrino.

[8] **AUDIOTRAX**; also *REMOTE RECORDING*; 7 Dana St., Revere, MA 02151; (617) 289-8044. Owner: Robert Kellaway. Manager: Bob Kellaway. Specialization & Credits: Audiotrax is a small yet complete in-house recording facility offering professional, creative audio production to producers of radio spots, A/V soundtracks, audiobooks and other industrial recording projects. We work with a large number of professional narrators and maintain extensive production music and SFX libraries on LP and CD. We also provide custom music editing for figure skating and other sports music programs. In addition, we offer location recording for seminars, workshops, etc., with editing and mastering through final cassette duplication. Please call for more information and rates.

[8] **BRAIDWOOD STUDIOS**; PO Box 4621; Metuchen, NJ 08840; (201) 548-8542. Owner: Andrew Bellware. Manager: Sam Mack.

[8] **BURELLO SOUND ENTERPRISES**; also *REMOTE RECORDING*; 3051 Oak St.; Mohegan Lake, NY 10547; (914) 528-0036. Owner: John Tamburello. Manager: John Tamburello.

[8] **CHERRY PRODUCTIONS RECORDING STUDIO**; RD 2, Box 640; Honesdale, PA 18431; (717) 488-6536. Owner: Bill Vargas. Manager: Bill Vargas.

[8] **CITY SOUND PRODUCTIONS**; 39 E. 7th St., Ste. #2; New York, NY 10003; (212) 228-9494. Owner: Robert Kirschner. Manager: Robert Kirschner.

[8] **THE COMMERCIAL REFINERY, INC.**; also *REMOTE RECORDING*; 2105 Maryland Ave.; Baltimore, MD 21218; (301) 685-8500. Owner: W. Gruehn, J. Contino, M. Collins. Manager: Jacci Burfield.

[4] **CYRUS SOUND**; also *REMOTE RECORDING*; 3545 South Park Rd.; Bethel Park, PA 15102; (412) 854-2076. Owner: Cy Anderson. Manager: Jean Anderson.

[2] **JACK DANIELS PRODUCTIONS**; 8056 Tuckerman Ln.; Potosi, MD 20854; (301) 983-9595. Owner: Jack Daniels. Manager: Phyllis Feelermyer.

[8] **DEMO-VOX® SOUND STUDIO D-V-X INT'L VIDEO**; also *REMOTE RECORDING*; 1038 Bay Ridge Ave.; Brooklyn, NY 11219-6009; (718) 680-7234. Owner: Demo-Vox Sound Studio, Inc. Manager: Laura B. Grassi.

[8] **FIREHOUSE STUDIOS**; also *REMOTE RECORDING*; 291 Port-Au-Peck Ave.; Oceanport, NJ 07757; (201) 229-3328. Owner: Dennis Dubrow. Manager: Dennis Dubrow.

[8] **GET OUT OF THE WAY**; also *REMOTE RECORDING*; 210 Tomahawk Trail; Sparta, NJ 07871; (201) 770-3208. Owner: Dan Eriksen. Manager: Dan Eriksen. Engineers: Dan Eriksen, Stephen D. Betsy, Jim Esposito, Kevin Locke. Dimensions: Room 1: studio 25 x 20, control room 10 x 15. Room 2: studio 30 x 15, control room 20 x 15. Mixing Consoles: Yamaha RM2408 24 x 16, Studiomaster 16 x 8. Audio Recorders: Tascam 38-8 8-track, Tascam 234 4-track, Tascam 112 2-track. Cassette Recorders/Duplicators: Technics high-speed dub deck, Tascam 112. Noise Reduction Equipment: dbx Type I, dbx Type II, Dolby A, Dolby B, Dolby C. Synchronization Systems: MIDI sync on tape w/sequencer, Roland SBX-80, IBM computer w/software, Apple II sequence software. Echo, Reverb & Delay Systems: (2) Lexicon PCM70 reverb, Yamaha REV7 reverb, (2) Lexicon LXP-1 reverb, (3) Yamaha SPX9011 multieffects, Korg DRV-1000 reverb, Loft

Chorus, Roland SDE-3000 digital delay. Other Outboard Equipment: TC Electronic 32 sec. delay effects, Eventide H3000 Harmonizer, Aphex Aural Exciter Type B, Aphex Compressor, Valley leveler, (2) dbx compressor, Ibanez compressor/limiter, 2/3 EQ, (10) noise gate [Drawmer, Kepex, GateX]. Microphones: Audio-Technica AT4051 48V condenser, Audio Pro IM-200 9V condenser, (2) Shure 565SD dynamic, (2) E-V PL11, Shure PE50SP, (6) Shure SM57, AKG 414BULS. Monitor Amplifiers: (2) QSC 3500, Crown 2500, BGW 750. Monitor Speakers: E-V SH15-2, JBL studio, E-V scoop bins. E-V Perkins bins. Musical Instruments: Yamaha DX7S, Korg Poly-800, Roland 909-808 drum computer, Roland 707 drum computer, Roland 727 Latin percussion, Roland MC-500 sequencer, (2) Kramer guitar (custom pick-ups), bass guitar, Roland S-50, Ludwig 10-piece double-bass drum set, (6) Zildjian cymbals. Tama TechStar TS-306 electric tom w/6 pads (TS-306). Other MIDI Equipment: IBM 64-track sequencer, TX816 w/8 modules. Video Equipment: (3) Panasonic WV-3 camera w/ENG and EFP, (2) Panasonic 6500 editor, Crosspoint 6129AHK 16-input switcher, Dubner CG, Eclipse Dig-effects, Targa Paint Box, Microtyme TBC. Other: Marshall stack, Gallien-Krueger bass amp, Trident 80B 32 x 24 available, 8/16mm sound filming available. Rates: Starting at \$10/hr.

[4] **SCOTT GORDON ENTERPRISES, INC.**; PO Box 791; Paramus, NJ 07653-0791; (201) 967-9765. Owner: Scott Gordon. Manager: Harry S. Buehlmeier.

[8] **HBS PRODUCTIONS, INC.**; also *REMOTE RECORDING*; 56 Aberdeen Ave.; Cambridge, MA 02138; (617) 492-5836. Owner: HBS Productions, Inc. Manager: Alan Mattes.

[8] **HONEY BEAR RECORDING STUDIO**; 2510 Raspberry St.; Erie, PA 16502; (814) 459-BEAR (2327). Owner: Walter Slivinski. Manager: Walter Slivinski.

[8] **JOYFUL NOISE STUDIO**; 47 E. Walnut St.; Metuchen, NJ 08840; (201) 549-7928. Owner: Ted Coleman. Manager: Ted Coleman.

[2] **MASTERDISK CORP.**; 16 W. 61st St.; New York, NY 10023; (212) 541-5022. Owner: Douglas Levine. Manager: Jill M. Dix.

[4] **MASTERS BY JOHNSON**; 832 Montgomery Ave., Narberth, PA 19072; (215) 664-1188. Owner: Stephen Johnson. Manager: Tommy Sandell.



MPC RECORDING STUDIOS  
New York, NY

[8] **MPC RECORDING STUDIOS**; 341 W. 45th St.; New York, NY 10036; (212) 757-6427. Owner: Michael P. Costanzo. Manager: Gavin Morrisson. Engineers: Michael P. Costanzo, Gavin Morrisson, Radcliff Issaacs, Fred Miller. Dimensions: Studio 20 x 30, control room 20 x 35. Mixing Consoles: Soundtracks 40 x 8 x 2. Audio Recorders: Otari MX-5050 8-track, Otari MX-5050 2-track, Sony PCM-501 2-track digital. Cassette

Recorders/Duplicators: Nakamichi Dragon, Akai GFX91. Noise Reduction Equipment: (4) dbx 160, Echo, Reverb & Delay Systems: Yamaha SPX90, Roland DEP-5, Lexicon PCM-42, Ibanez SDR-1000, Yamaha REV7, Roland SDE-3000. Other Outboard Equipment: Orban 442, dbx 166, dbx 167, UREI 170S, EXR Exciter, Yamaha MSS SMPTE/MIDI synchronizer. Microphones: Neumann TLM170, E-V RE20. Monitor Amplifiers: Adcom 6F 555. Monitor Speakers: Yamaha MS-10, E-V Sentry 500, Fostex 6301 mini monitor. Musical Instruments: Yamaha TX216 rack, Yamaha DX7, E-mu SP-12 turbo, Akai S900 sampler, Oberheim Matrix-6, Ensoniq Mirage, Casio CZ-5000, Roland D-550, (2) Alesis HR-16 drum machine, Yamaha DX100. Video Equipment: Panasonic 6810 VHS-SMPTE video recorder, Sony 19" monitor. Other: IBM AT computer, Octave Plateau Mark III, Sharp CD player, EMS Vocoder 1000, Technics 1200 turntable. Rates: Available on request. Specialization & Credits: One of the top MIDI pre-production studios in Manhattan. Credits include Kool Moe Dee, Stephanie Mills, Kenny Gattling of Guy, Daddy O of Sleisasonic, Kraze, Moonfool, Sky King, Orange Juice Jones and all major and independent labels.

[8] **MUSIC UNLIMITED**; also *REMOTE RECORDING*; 20 W. Third St.; Jamestown, NY 14701; (716) 484-7284. Owner: David Cusimano. Manager: David Cusimano.

[8] **MUTTLEY MUSIC MACHINE**; also *REMOTE RECORDING*; RD #1, Box 129; Barto, PA 19504; (215) 845-3133. Owner: Vincent J. Indelicato. Manager: Vincent J. Indelicato.

[8] **PANETTA STUDIOS**; also *REMOTE RECORDING*; 6 Miller Ave.; Elmwood Park, NJ 07407; (201) 791-0254. Owner: Angelo Panetta. Manager: Ken Kuiken.

[8] **PLH RECORDING STUDIO**; also *REMOTE RECORDING*; 8311 Delaware Ave.; Havertown, PA 19082; (215) 446-3815. Owner: Brian J. Centonze. Manager: Brian J. Centonze.

[8] **QEC RECORDING**; 65 Stirling Ct.; Metuchen, NJ 08840; (201) 549-0023. Owner: R. Quinto, M. Walsh. Manager: Paul Allemen. Engineers: Bobby Quinto, Mike Walsh. Dimensions: Studio 13 x 31, control room 10 x 18. Mixing Consoles: Studiomaster Series II w/MIDI automated muting 16 x 8 x 2, Yamaha MM30 4 x 4 x 2. Audio Recorders: Tascam T38 8-track, Yamaha MT44 4-track, Tascam T32 2-track, TEAC 2300S 2-track, Ampex AG-440B 2-track. Cassette Recorders/Duplicators: JVC KDA-8 (real-time), Yamaha MT44 (real-time), Nakamichi BX-1 (real-time). Noise Reduction Equipment: (2) dbx DX-4D Type I, Echo, Reverb & Delay Systems: Yamaha REV7 digital reverb, Yamaha SPX90 digital reverb, Ibanez HD-1000 digital delay/harmonizer, Ibanez SDR-1000 digital reverb, Roland DEP-5 digital reverb, Yamaha REX50 digital multieffecter. Other Outboard Equipment: (2) Valley People 440 comp/exp/lim/de-esser, Valley People Dyna-Mite, (2) Valley People GateX, dbx 163X comp/lim, dbx 463X noise gate, dbx 166 over-easy comp/lim. Microphones: (2) AKG C-414EB, Neumann U87, E-V RE16, (2) Shure SM81, (4) Sennheiser MD-421, (4) Shure SM57, Shure 55S, Sennheiser MD-441, Neumann KM84. Monitor Amplifiers: (2) Carver PM-200. Monitor Speakers: JBL 4425 w/biradial horns. Musical Instruments: Ensoniq Mirage (digital sampling keyboard), Oberheim Matrix-12, (2) Yamaha DX7, Moog Memorymoog, Yamaha RX11 drum machine, Yamaha TX81Z FM tone generator, (2) Roland MT-32 multimatrix tone module, Roland Super JX MKS-70 module. Video Equipment: Basic VHS duplication services. Other: (2) Rane HC-6 headphone amplifier, (8) AKG K141 headphone, all Whirlwind input bays, cables, and direct boxes. JVC 2-track digital mastering available upon request. A full line of rental equipment can be made available at additional charge upon request. Rates: Hourly and production rates are available upon request. Specialization & Credits: We also offer a musician's lounge, and during the summer months—an outdoor musician's lounge, heated pool and spa. Our goals are not only to cater to the well-rehearsed musician—hourly rate—we also offer a full in-house production staff to meet all of the musician's needs—production rate—including: use of studio instruments, an audio engineer, session musicians, a producer and anything else one could think of. Production rates will vary, depending on the exact type of service that is made available.

[2] **QUEANS STUDIO OF JOE SIEGEL, INC.**; also *REMOTE RECORDING*; 45-27 215 Pl.; Bayside, NY 11361-3444; (718) 224-8789. Owner: Joe Siegel. Manager: Joe Siegel.

[8] **FRANK SCHEIDT AUDIO PRODUCTIONS, INC.**; 15 Charlotte St.; Rochester, NY 14607; (716) 232-5210. Owner: Frank Scheidt. Manager: Milly Scheidt.

[8] **SELCEER SOUND**; 6 Sparhawk St.; Brighton, MA 02135; (617) 782-3384. Owner: Ken Selcer. Manager: Rose LeBlanc.

[2] **SELTZER SOUND**; also *REMOTE RECORDING*; 185 E. Broadway; New York, NY 10002; (212) 477-2372. Owner: Carl Seltzer. Manager: Carl Seltzer.

[2] **6/8 STUDIOS**; 19613 J. Gunners Branch Rd.; Germantown, MD 20874; (301) 540-0780. Owner: Ali Sharifpour. Manager: Ali Sharifpour.

[8] **STREET SOUNDS STUDIO**; 17 Armonk Rd.; Mt. Kisco, NY 10549; (914) 747-0810. Owner: Phyllis Bettino. Manager: Laura Poole.

[8] **STROBE-LIGHT SOUND STUDIO**; 1219 Bergen St.; Brooklyn, NY 11213; (718) 771-3411. Owner: Andrei Strobert. Manager: Andrei Strobert.

[8] **STUDIO PASS AKA THE PUBLIC ACCESS SYNTHESIZER STUDIO**; 596 Broadway, Ste. 602; New York, NY 10012; (212) 431-1130. Owner: Harvestworks, Inc. Manager: Carol Parkinson.

[8] **STUDIO RED**; 5010 Newhall St.; Philadelphia, PA 19144; (215) 843-7053. Owner: Adam Lasus. Manager: Joel Schwartz.

[8] **THE TURNING MILL, INC.**; also **REMOTE RECORDING**; PO Box L; Palenville, NY 12463; (518) 678-9293. Owner: Owen Swenson. Manager: Lucy Swenson.

[8] **WALKER AND SIX STUDIO**; 17 6th Ave.; New York, NY 10013; (212) 941-0060; (212) 941-0080. Owner: Timothy Trespas. Manager: Timothy Trespas.

## LIVE · SOUND

—FROM PAGE 181, GRAMMYS

mined what the artist wanted in the monitor mix, while maintaining a sense of simplicity.

The foldback mixing position was at the side of the stage, near the sidefill P.A. stacks, so an output from the mixing board bus was fed to the PL headphones to hear the production cues.

Two 40-input Ramsa SR840 mixing boards were used for foldback. The outputs were fed to a Yamaha M406, which summed the outputs and fed the power amplifiers. Outboard-wise, dbx 160 compressor/limiters and Klark-Teknik 1/3-octave equalizers were used.

### MURRAY ALLEN—SOUND DESIGNER

Murray Allen, president of United Recording of Chicago, has been affiliated with the Grammys since 1973 and has served as sound designer for the last decade. This year he introduced a number of innovations, including surround sound, a new equalization "tuning" technique and an in-line console layout.

The surround sound used audience microphones feeding a Shure surround sound encoder (on the production truck) for the television send. Allen monitored the sound quality in a separate "hi-fi" listening room set up at the Shrine. Naturally, the 2-track stereo and monophonic sound were also monitored. He spent time with CBS throughout the week, checking and confirming channel ID, levels, phase and so on. The program was transmitted by satellite from Los Angeles to New York,

—CONTINUED ON PAGE 191

## FIELD · TEST

—FROM PAGE 91, ROLAND E-660

flexible Q curves. These would be hard to match in an analog device.

As I have already mentioned, there is no way to bypass the D/A and A/D converters, so in order to judge the quality of these, I had to set up a parallel chain on my console, carrying the same signal unprocessed. Based on my listening tests—as opposed to any technical measurements—there was remarkably little coloration on a flat setting or in thru mode.

As with many digital processors, a small amount of quantization noise is apparent at very low levels, but this is unlikely to be a problem. This situation simply does not exist if the E-660 is used exclusively in the digital domain, where all we should hear is the treatment, with no coloration brought about by the unit.

In such a comprehensive equalizer, it would have been nice to see a genuine notch filtering mode for all bands, as well as notch emphasis, which the unit offers in 4-band parallel mode.

Care must be taken to ensure that the time delay inherent in the digital processing does not cause phase problems when the original, unprocessed signal is inadvertently combined with the E-660 output. This may be why Roland offered the option to add pre-delay so that the signal can be taken beyond the "swishy" phasing areas, and we become more aware of a delay and less aware of a phase error. But unfortunately, there is absolutely no indication in the manual of applications for the delays.

A couple of further observations about the 4-band parallel mode: with no EQ applied, there is *no* signal present at the output! Because it is acting as a bandpass filter, and we have not specified what amount to boost any particular frequency, the E-660 assumes zero boost and lets nothing through. An impatient, first-time user might be tempted to make an angry phone call to the dealer.

Listening only to the E-660 outputs in the 4-band parallel mode, I detected little difference between the plus and minus settings of the level controls; they both permit bandpass either side of zero. The only difference is that the phase is positive or negative. For a separate signal not combined with its original input, this is irrele-

vant. If processing delays can be matched externally, then we could use the device for phase cancellation in selected bands.

Because analog input signals are sampled only at 48 kHz, I think Roland will miss out on clients wanting to prepare CD-compatible masters from analog tapes. I should mention, though, that the system can be "fooled" by feeding in a "dummy" digital signal (say a CD player) to change the sampling rate to 44.1 kHz. Roland engineers tell me that a software update allowing manual switching of sample rates is not possible without a hardware modification. Ideally, users should be able to choose their own sampling rates.

I have already put the unit to effective use brightening up an overall mix to a DAT master. I have also been experimenting with creating artificial stereo effects in the 4-band parallel mode. All sorts of creative potential exists for automated EQ changes with a MIDI sequencer, or real-time operation with MIDI controllers. There is further potential for the live musician who needs a memorized bank of different EQ settings.

The sharp Q curves available on the E-660, combined with extreme level settings and real-time frequency band changes, can give dramatic "sweep"-type effects.

A disc mastering studio or transfer facility will find the memory storage useful, and graphics display facilities will find many uses in crossover and P.A. applications.

The E-660 is clearly a well-designed, professional product with good facilities. I have no doubt Roland will do extremely well with it. My only major complaint concerns not the unit itself, but the manual. It is written in such a way that setting the unit up appears more complicated than it really is. Also, several features could easily be missed because of inadequate documentation and application ideas, quite apart from the more obvious (and expected) mistakes in the use of English.

I have heard the rumor that Roland is opening up a department devoted entirely to manuals. Whoopee! ■

---

*Alan Parsons is a noted engineer, producer and composer. This text originally appeared in the Japanese magazine Prosound.*



**Presence Studios (E. Haven, CT) was the first New England studio with a Lexicon 224XL (1984). The music/audio production facility recently purchased a TC 2290 with 11 seconds of sampling.**

lator, calls it "slick, very hip for the money, ambient and open-sounding. Very *real*. It's one rack space and gives you what you want without too much effort."

AMS's well-known digital reverbs and delays/samplers continue to score points with Sound on Sound, Tiki Recording, Platinum Island and Atlantic. Steve Bramberg notes, "The biggest requested item [at Atlantic Studios] is the AMS reverb and delay. There's rarely a session that doesn't want AMS products, because they sound great and do many different things." Blue Jay's Mark Tanzer adds that the "DMX 15-80 is great for spreading vocals with delay and harmonizing." At Normandy Sound, Ralph Petrarca comments, "AMS units are great for editing. The DMX 15-80 came out five or six years ago, but they've upgraded it, and ours is two years old. AMS doubled the sampling time and put in a MIDI plug, so you can plug right into the back of a DX7 and play the sample in any key."

Many would consider a DSP survey incomplete if it didn't mention the powerful Publison Infernal 90. Howard Kessler of Sanctuary, which owns one of the few Publisons in New York, says it's a hot item because "it has 21 seconds of stereo sampling, really hip programs, and is incredibly clean and hard to get. It's older, but it's wondrous."

In agreement, Richard Kessler adds, "Typical items used on most mixes would be the Publison machine and the Roland Dimension D. The old standards are being used, for good reason. For example, today we have Simply Red coming in. They're flying in from London for a couple of days to do remixing with an engineer here in town. These people don't have the time [to try out new boxes]; they know what works and what they can do with it. A lot of engineers don't get to demo these new products in non-pressure situations.

"I think to get this new stuff really going," continues Kessler, "it would be hip for manufacturers to provide a few key studios with a real break on [new items], so people would say, 'Hey, they have this thing over at that studio.' Console makers do this; why not the people who are making digital signal processors?" ■

*Mix assistant editor Linda Jacobson also runs Wordswork, a technical writing/editing service based in San Francisco.*

—FROM PAGE 46, N.E. STUDIOS

Quadraverb [a 16-bit, simultaneous effects DSP with 100 memory locations and 90 factory programs], which looks very interesting. A dealer near here is going to send one by for us to test. For the money, you can't beat these Alesis units."

At nearby Power Play, Tony Arfi feels "lucky to get two of the new Quadraverbs, and now the engineers are fighting to get them! It's great, both for the price and for the fact that it has multiple effects: you can have reverb and flanging and panning all on the same program. And it's very good-sounding in terms of frequency response; I've heard that the high end is so crystal clear, you actually have to roll it off."

#### HONORABLE MENTIONS

The AKG ADR 68K reverb (with its MIDI-controllable parameters, 32-second, 16-bit sampling and over 150 factory presets) impresses Mark Tanzer in Massachusetts (it's his favorite new device, with "some of the warmest reverb sounds") and New York's Shamir, who carries it in his personal rack.

Shamir also points to another use-

ful unit: "For a user-friendly, cheaper-priced box, the Klark-Teknik DN780 is pretty happening. Most studios have one in their MIDI rooms."

Other hot DSPs include: the Roland SDE 3000 (an oft-requested item at Atlantic Studios, this older, yet extremely popular, programmable digital delay was brought back into production earlier this year) and the dbx 120X Subharmonic Synthesizer bass processor, which is quite popular at Platinum Island, according to studio owner Richard Kessler.

#### OLD STANDBYS CHALLENGE NEW TOYS

Since few engineers have the time to learn new units, some studios prefer to use the tried-and-true, relatively older DSPs out there. Indeed, RPM Sound has had the classic EMT 250 reverb for ten years, and "that's requested as much as the Lexicon 480L, if not more," notes Robert Mason. The Quantec Room Simulator is used on lots of mixes at Quantum and Platinum Island. Will Schillinger of Marathon Recording in NYC, where Kashif occasionally brings his personal Simu-



**New York's Chung King serves up a full menu of tasty digital signal processors, topped off by the TC 2290.**

## LIVE · SOUND

—FROM PAGE 118, EAW

The current KF850 series was developed as an easily flown, arrayable, one-box cabinet for pro touring applications. The KF600 is a spin-off from the KF850, with subwoofer cabinets available for each. The KF300 is EAW's latest release. An MX800 signal processor is required for the 850, 600 and 300 Series. A complete line of monitor wedges is also available.

The following are some of EAW's current P.A. sound reinforcement models:

**KF850-FD3** Virtual Array System with flying hardware

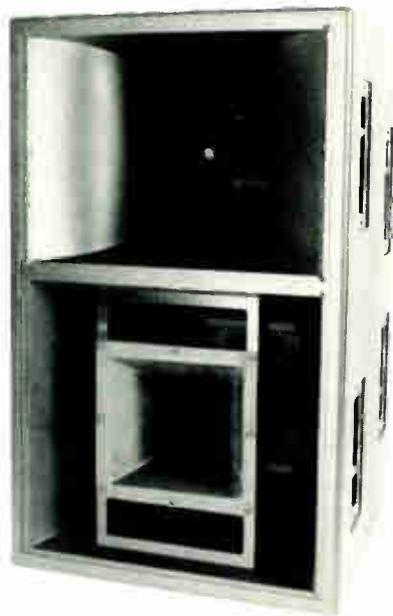
**SB850-RD2** Virtual Array Subwoofer System

The KF850 was designed to meet packaging requirements for transportability, and to array properly for minimum lobing and interference. It is a long-throw system.

**KF600R** Compact Virtual Array System Portable

**SB600-RD2** Virtual Array Subwoofer System

The KF600 started as a KF850 designed for church installations. It was made smaller, less expensive and with lower output. According to Berger, "The 600 is conceptually identical to the 850.



While being one-third the size and half the cost of the 850, its performance differential was not as great as we originally anticipated. Now we see it going into many different markets in addition to the installed market."

**KF300R** Ultra-Compact Virtual Array System

**SB300-RD2** Ultra-Compact Subwoofer System

The new KF300 medium-throw series is designed for smaller, lower-output applications such as nightclubs, industrial/corporate A/V and onstage monitoring.

**MX800** CCEP Signal Processing Unit

Each unit is stereo—only one unit is necessary to run both sides and the subs. This crossover unit uses asymmetrical slope filters aligned to the actual performance of the loudspeaker system. A minimum number of controls ensures that when the unit is properly set up there is little chance of amplifier clipping. Given enough power, one can reach maximum output specs on the KF850, for example, without the processor going into protect mode. ■

**Below: EAW's KF850, with and without metal front grille. Recessed flying points are visible at top of cabinet at right.**



50% Cotton/50% Polyester  
Made in USA

T-Shirts \$12 Sweatshirts \$18

Send Check or MO w/Sizes to:

StudioWear  
304 Newbury St. #110  
Boston, MA 02115  
Massachusetts add 5% sales tax

Circle #041 on Reader Service Card

**U.S. Audio**  
The **U.S. Audio™ P-40** Studio Stereo Power Amplifier. 40 ultra-clean watts of regulated Class-A amplification in a single-space rack-mount design. Available as the P-40B with balanced inputs.

**U.S. Audio**  
Made in the USA by Whirlwind  
P.O. Bcx 1075  
Rochester, NY 14603  
716-663-8820

Circle #042 on Reader Service Card

—FROM PAGE 133, NAMM

1/3-octave equalizer for \$199. This 1U rack unit uses the same packaging technology as the 1622 mixer in order to lower costs. Not to be outdone, ART introduced two new graphics (\$425 each) that are solid, quiet and cost-effective; but what really caught my eye was the SGE, a multiple effects box that provides up to nine simultaneous effects, including distortion. This looks ideal for guitarists, although DOD's GSP-5 looks to give it some strong competition. In fact, Roland, Boss, Korg, ADA and several other companies introduced great little rack-mount guitar preamps. Thanks to heavy metal, guitars are back, and manufacturers seem more than willing to let guitarists partake of the latest signal processing technology for a reasonable price.

Over in MIDI-land, the name of the game is managing your setup, from software to accessories. One particularly useful set of the latter comes from Anatek (North Vancouver, British Columbia), which introduced three tiny, self-powered MIDI accessories for \$99 each. These include a MIDI merger, a pedal controller that translates volume pedal motion to MIDI continuous controller data and a MIDI filter that can filter out a variety of MIDI messages from the data stream. A pocket sequencer—basically a hardware MIDI notepad—will soon be available at a somewhat higher price.

In other MIDI control news, Lake Butler Sound Company of Windermere, Fla. (makers of one of the best MIDI footswitches around), intro-

duced the CFC-4 Continuous Switch Controller. This quad pedal device sends MIDI continuous controller data with eight different pedal response curves. Furthermore, you can assign long command strings to each pedal—enough to control 16 parameters at once. Oberheim got into the act with Navigator, a \$299 MIDI accessory box that filters and reassigns controllers, maps notes and controls patch changes.

On the software front, Steinberg/Jones showed M.ROS, a musician-oriented operating system for the Atari ST, Mac and PC. The demo consisted of running the hot new *Cubit* sequencer (\$495) simultaneously with *Mimix* automated mixdown software and *Synthworks* M1 editor/librarian on the ST. (All three pieces of software are also from Steinberg/Jones.) Apparently, M.ROS works by splitting the computer's memory into a bunch of "virtual computers," each running its own program. Yes, computers that don't inherently multitask can provide a pretty sophisticated version of multitasking. And to make life easier for Mac software writers and users, Apple unveiled a set of standardized MIDI drivers.

Actually, computers had quite a presence at the show; the Apple, Commodore and Atari booths were well-attended by showgoers and developers alike.

A new class of MIDI software made an appearance: system setup software. Dr. T's, Johnsware and MIDImouse all showed sophisticated programs that essentially take a "snapshot" of your system (program changes, patches, instrument names and channels, and so on), which are then stored on disk for later recall. Although we aren't quite at the stage where you can push a button and configure your entire setup—some of the hardware hasn't kept

up with the software—we're getting closer to that ideal all the time.

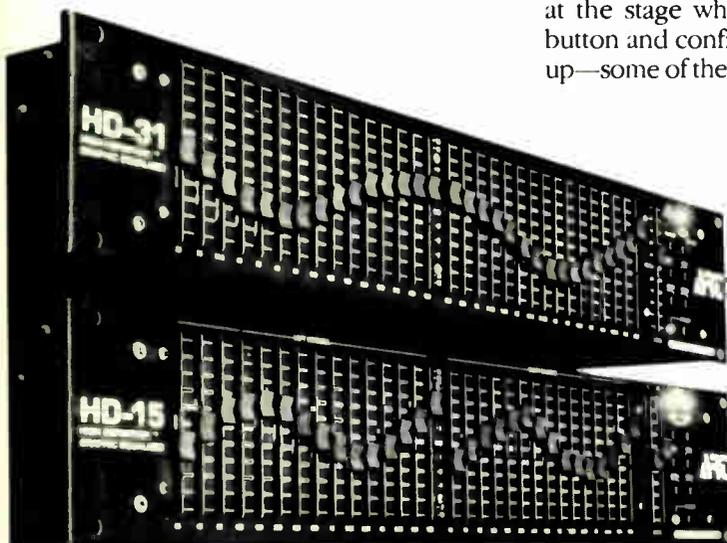
When it comes to Mac sequencers, Opcode's *Vision* and Resonate's *Portrait* were the main topics of discussion. Most showgoers gave neither program a clear edge; both include several advanced features and lots of user-friendly bells and whistles. Furthermore, Passport just released Version 3.3 of *Master Tracks Pro*, which speeds up program operation a bit and generally improves what is already one of the top-selling programs for the Mac.

For the IBM, *Prism* is a \$99 sequencer that adds graphics to *Texture's* repertoire, and *Voyetra* has successfully integrated Intelligent Music's *M* into its outstanding *Sequencer Plus* line of software. *Sequencer Plus* has acquired a reputation as "pro" software; adding *M's* algorithmic capabilities will only enhance that image.

Finally, let's talk a bit about Korg's M1, one of 1988's top keyboards. Korg has now introduced the M1R, a rack-mount version, as well as some new ROM cards that sound absolutely great (particularly the drums). What's more, Korg's beefed up the M1 (again, there's that trend toward upscale synths we mentioned last month) and created the T1, with 88 keys, 8 megabytes of 16-bit PCM sounds, internal disk drive, more sequencer storage (approximately 60,000 notes) and a great looking display. Korg also showed the S1, a 16-bit sampler with 1 MB of sounds in ROM, sample memory expandable from 512K to 2 MB, 16-track sequencer with SMPTE/MTC/MIDI clock sync and a variety of options (SCSI, digital I/O and four additional outputs). Existing M1 owners were not left out in the cold: Frontal Lobe (from Cannon Research Corporation of Grass Valley, Calif.) is an expander for the M1 that increases the sequencer's storage capacity (\$399 for 15,000 events; \$398 for 64,000-event upgrade). Cannon also offers an optional \$399 disk drive that can save and load songs, programs and combinations.

As I said last month, there was a lot of new gear at the show—so much, in fact, we're going for an unprecedented three-part NAMM show report. Catch you next time. ■

*Craig Anderton writes books, produces and plays music, and edits Electronic Musician, our sister magazine.*



**Applied Research & Technology of Rochester, NY, showed its HD-31 (mono, third-octave) and HD-13 (dual 15-band) graphic equalizers. The EQs list at \$425 each.**

# CLASSIFIEDS

## Employment Offered

**Technicians Available Now!** Graduates of an intensive two-year program. Capable of servicing electronic music equipment from vacuum tubes to microprocessors. 1988 placement: 100%. Need quality, enthusiastic, diligent employees? They're here! Red Wing Tech, Highway 58 and Pioneer Road, Red Wing, MN 55066, (612) 388-8271.

Chief audio maintenance engineer. Bachelor's in EE, B avg min or 3-5 yrs exp. in elec. repair, troubleshooting, maintenance. Tape mchn & sync exp good. ExcelInt organizational & mgmt skills req. Self motivated, enthusiastic only. \$ based on exp. Call Kajem Studios, (215) 642-2346.

**Wanted:** Salesperson with dynamic personality, desiring stable employment situation with the world's largest music and pro audio retailer. Must have extensive background in large console/multitrack sales, as well as signal processing and microphone knowledge. Convenient New York City location. Salary, commissions, great benefits and a golden opportunity for personal growth. Please contact Dino Virella at (212) 719-2640 for further information and interview appointment.

### Audio Sweetening

Major NYC video facility seeks audio engineer with experience in multitrack sweetening. Send cover letter and resume to PO Box 780, Dept. EL, 340 W. 42nd St., NY, NY 10036.

### Recording Engineer

Record production company offers an outstanding opportunity in South Florida for a fully qualified person with extensive experience in contemporary multitrack audio technology including MIDI. Send complete resume (confidentiality assured) to S.I.R. Corp., 8925 W. Oakland Park Blvd., Fort Lauderdale, FL 33351, or phone (305) 749-4858. Substance abusers need not apply.

**Audio Electronics Technician** to work in professional recording and sound reinforcement fields. Must have considerable experience with: mechanical and electronic alignment/repair of multitrack tape decks, recording console troubleshooting, professional audio equipment repair and installation, audio electronics, establishing a good rapport with clients. The position will require: a car, air travel, a great attitude, a positive commitment to the company and a

high professional standard. Please reply to: E.A.R.S., Inc., 90 Windom St., Boston, MA 02134, (617) 783-5229. Position is available now.

## Equipment For Sale

IF YOU'RE NOT USING IT — SELL IT!

Your national clearinghouse for used audio and video! Call for free copy of our latest listings, or to list your used gear free.

The Bertech Organization  
Call toll free: (800) 992-2272  
In Calif. call: (818) 909-0262  
THINK BERTECH FIRST!

### DO YOURSELF A FAVOR

If you're ready to buy any type of recording gear or musical instrument, do yourself a favor and call us before you buy. We have most name brands at some of the lowest prices you'll find anywhere. Call us before you buy, you won't regret it. (318) 989-1000.

## USED EQUIPMENT Bought & Sold



Summit  
Audio  
Inc.  
P.O. Box 1678  
Los Gatos  
CA 95031  
408-395-2448

**New, Used & Demo NEOTEK, dbx, Trident, Otari, Lexicon, Neumann, Soundcraft Series IV 40x8 stereo w/pb, case and extras demo \$45,000. Soundcraft 800B 32x8 custom version new \$16,000. Used Cipher System \$2,400.**

**Pyramid Audio Inc.**  
(312) 339-8014  
Call Us Last!

### LEASE/BUY/SELL

Great prices and great service on over 200 lines including Otari, Harrison, Soundcraft, Tascam, JBL, Lexicon, AMS, Akai, Trident, KT, dbx and all the rest for the best in new or used. **AVC SYSTEMS (800) 323-0281**, in MN call (612) 831-3435.

### DAN ALEXANDER AUDIO Buys, Sells and Trades

Used professional recording equipment of all types.  
2944 San Pablo Ave.  
Berkeley, CA 94702  
Phone: (415) 644-2363  
TELEX 650 291 8567 MCI



THE LAST CALL YOU WILL EVER HAVE TO MAKE FOR THE BEST DEAL ON PRO AUDIO GEAR

**215-426-6700**

TekCom carries a full line of professional sound reinforcement, recording and midi equipment by Otari, Crown, JBL, Fostex, Tascam, Kurzweil and Roland among others. Our qualified sales staff and factory trained technicians are waiting to assist you.

TekCom Corporation  
1020 N. Delaware Ave. Phila., PA 19125

Neve 8068 MkII 32-channel, VCA faders w/8 VCA group masters, 4 echo returns, TTL patch bay on DLs \$75k or BO. Fairlight Series III 16-voice, 14-meg RAM, 140-meg hard disk, tape streamer, rack-mounted, large library \$35k or BO. 24 Dolby A carts; \$3,500 for all. TTM Dolby frame, \$3k; 24-ch dbx K-9, \$1k. (212) 921-1711.

## DAT

We have Digital Audio Tape Decks (and Portables) in stock now!

## PCM

We buy and sell all Sony PCM products. Call for info!

LC-OFC Wire—the best!!  
Discount prices for studio wiring.  
18 Bit Yamaha D/A Conversion Units.

**Audio Gallery (213) 829-3429**  
2718 Wilshire Bl., Santa Monica, CA 90403

### PHOTON GUITAR MIDI CONVERTER

Complete Systems for under \$600! Unparalleled MIDI implementation, open architecture, foot-controllable. Can be installed on any guitar. Used by top artists. To order, or for more information, call (800) 782-8686.

## ICB AUDIO

1349 E. McMillan  
Cincinnati, OH 45206  
Call us for over 100 lines of Professional Audio and Video  
(513) 281-5535

## MILAM AUDIO

is

### "THE SOURCE"

FOR THE SWEETEST DEALS IN PRO AUDIO,

ON NEW & USED EQUIPMENT STUDIO DESIGN INSTALLATION 1-7 YEAR LEASING TRADE ALLOWANCE FULL SERVICE

*In the long run, it costs less to deal with the best.*

## MILAM AUDIO

Since 1967

1470 Valle Vista Blvd.  
Pekin, IL 61554  
(309) 346-3161

### THE RECORDING CENTER HOUSTON, TX

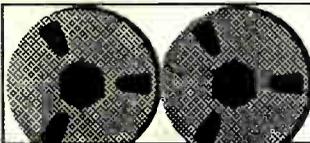
We have most brands of recording equipment and can offer you the best deal nationwide from our complete selection of keyboards, MIDI devices, computers & software.  
(800) 624-2347

### NEW, USED, DEMO SALE RECORDERS, CONSOLES, OUTBOARD EQUIPMENT

Trident consoles, Soundcraft 6000 28x24 w/bay, Aries mixers, Ampex MM1100 16-trk, Soundcraft 762MkII 24-trk w/locator, Studer A810, dbx 900 24-ch Type I, UREI 811s, Dolby 363SR, Sony PCM-2500, Tascam MS-16, Dyaxis Digital Audio, Tangent 20x4 w/case. Experienced staff/factory service. Lease packages available.

### E.A.R. PROFESSIONAL AUDIO (602) 267-0600

Neve console #325 built 1971, rebuilt 1983, 36 in, custom #1073 EQ, MasterMix automation, 16 grps, 8 aux grps, 16x4 monitor, (6) #2254 comp/lim, jack bay, film mix recorder and monitor control \$50k. ADM 770 film mix console 16x4x4 \$3k. 2-inch 16-chnl head assemblies: Ampex ATR-124 \$3,000; Ampex MM-1200 \$2,000. Call for our listing of hundreds of items. Dominick Costanzo, (212) 765-4757.



**THE REEL  
DEALS ARE IN DC.**

Otari MTR-10CT Recorder- \$9.9K  
 Otari MTR-12CT Recorder- \$10.9  
 Otari MK-II & BQ Series Recorders  
 TAC Matchless 36 x 24 Patchbay- \$25K  
 TAC Scorpion 40 x 8 w/ 8 Aux- \$17K  
 Soundtracs ERRC w/ Auto- Call  
 Soundcraft 8000 40 Input PA- \$20K  
 AHB Sigma Series 36 x24- \$26K  
 Quad 8 Coronado Console- \$22K  
 Dolby 361SR- 1.4K  
 UREI & Crest Power Amps  
 Sony, Sharp, Ramsa R-Dat In Stock  
 Washington Professional Systems  
 11157 Viers Mill Rd. Wheaton, MD 20902

**301-942-6800**

**HARRISON MR-3 CONSOLE** 28x24 in 36 frame. True 3-band parametric EQ on all channels. Nine subgroups and Allison 65K automation. Over six gold records have been cut on this console. Other equipment available. Call Jim at (513) 681-8715.

SSL 4000E 48 frame-loaded 40 Total Recall and primary computer, plasma display, printer, light package w/spectrum analyzer, producer's desk, right-hand patch bay. Asking \$165,000. Call Phil Greene (401) 247-0218.

**WE EXPORT  
BUY • SELL • NEW • USED**  
 Recording gear • P.A. Equipment  
 Music Instruments  
 MOST MAJOR LINES  
 Bruce S. Yarock, Inc.  
 9810 NW 80 Ave. Bay #8D  
 Hialeah Gardens, FL 33016  
 Call (305) 558-3345  
 FAX (305) 558-0791.  
 Wanted: Pultec, Neve,  
 Neumann tube equip.

For Sale: Northern Audio's "System A," a complete, state of the art, truck-pack, concert P.A. Previously housed at Harpo's Concert Theatre in Detroit, system has handled over 500 national concert events. Main stacks consist of 3-way, 2-box cabinets in a vertical array (all JBL components). Concerts configuration is 4 stacks per side, w/max stereo output of 8,000 watts (Crown Micro-Tech) per channel. Other features: NEOTEK Series 1E 32x8x2 house console; full complement of outboard gear; Yamaha MC-2408M 24x8x2 monitor console; (6) Gauss co-ax wedge monitors; (3) Gauss/JBL sidewall/drum monitors; 200-amp AC distribution; 250' snake system with AMP multiconnects, monitor split, 50' sub-snakes; mics & stands—Shure, Sennheiser, E-V, Beyer, AKG, Countryman; and much more. Call (313) 349-4975 for complete details.

Necam I moving fader auto system w/2nd Necam computer, 40 Necam faders, spare parts. 100 new Aphex 500A plug-in VCAs for MCI 500 auto upgrade. Studer A80 1" 8-trk. (2) Valley Dyna-Mites. 24-ch Dolby A CAT-22 cards. BTX Cypher. 2 EMT-140 plates w/tubes & amps. (212) 645-6319.

**MIDAS CONSOLES**

32x8x2 PRO5 house, 30x10 PRO4 monitor, excellent condition. Half Nelson Systems Inc. (705) 674-1450.

**AVR**

Audio Video Research  
 The Studio Store  
 (617) 924-0660

The only call you have to make for:

- |                     |                |
|---------------------|----------------|
| Akai                | Mogami Cable   |
| AKG                 | Nady           |
| Allen and Heath     | Nakamichi      |
| Aphex Systems       | Opcode Systems |
| Aries               | Orban          |
| ART                 | Otari          |
| Ashly               | Panasonic      |
| Atari Computers     | Proco          |
| BBE                 | Ramsa          |
| Beyer Dynamic       | Shure          |
| Biamp               | Studiomaster   |
| Canare Cable        | Summit Audio   |
| DIC DAT Tape        | Tannoy         |
| Eventide            | TC Electronic  |
| Hybrid Arts         | Telex          |
| Intelligent Music   | Twelve Tone    |
| Mark of the Unicorn | Systems        |
| MRL                 | USAudio        |
| Milab               | Whirlwind      |

**Exclusivamente para o Brasil,  
oferecendo instalação e  
assistência técnica:**

- |          |         |
|----------|---------|
| dbx      | Lexicon |
| Harrison | Otari   |
| JBL/UREI | Trident |
| Kurzweil |         |

**Audio Video Research**

106 Main St., Watertown, MA 02172.

Demonstrator QRS room simulator available from Marshall Electronic with new warranty. (301) 484-2220.

**Synclavier II** 32 stereo FM voices, VT 640 graphics terminal, velocity/pressure keyboard, 2x double-density disk drives, music printing software, release "V" software, & flight cases. \$29,500. Call daytime: (805) 295-1940; evening: (818) 368-1622. Ask for Yair.

**The DAT Room.**

The East Coast's first all digital audio tape listening room. DAT cassette recorders—home, portable & pro units from \$995. Full warranty, all accessories, major credit cards. The DAT Room at Discorama, 186 W. 4th St., NY, NY 10014, (212) 989-7236.

**DAT\*DAT\*DAT\*DAT\*DAT**

Portable Sony and Technics DAT players at rock bottom prices.  
 Call Marc, (818) 966-9226

**DAT\*DAT\*DAT\*DAT\*DAT**

**AVR**  
 106 Main St.  
 Watertown, MA 02172  
 (617) 924-0660

The Widest Selection of Used Gear  
**IN STOCK \* PANASONIC DATS  
 \* SONY PCM 501/601 \* TANNOY  
 PBM 6.5/PBM 8 \* DIC DAT TAPES  
 \* EVENTIDE H3000 \* IN STOCK**  
 Ampex ATR-102/104 (many available): \$5.5k to \$7.5k; Ampex MM-1200/16: \$8k; Ampex AG440: call; Fostex A2: \$600; Fostex E16 (30 ips): \$5k; MCI JH-110 4 track: \$4k; MCI JH-16 (w/locator): \$8k; Otari MkIII-8: \$4k; Otari MkIII-2: \$2.5k; Otari MX-5050B II: \$2k; Otari MTR-90: \$35.5k; Tascam 38: \$1.7k; Tascam MS-16 (complete): \$9.5k; AHB CMC 24 (mint): \$4.5k; MCI 636/24: \$24k; Soundcraft 3B 32x24x32 w/PB: \$18k; Trident 80 32x24 w/PB: \$27k; dbx 160: \$350; dbx 162: \$450; dbx 165A: \$550; Dolby 361A: \$750; EMT 140: \$2k; EMT 240: \$3.5k; KT DN360: \$1.1k; Lang PEQ-2: \$700; Lang PEQ-2A: \$800; Lexicon 480L w/LARC: \$7k; Lexicon 200: \$2.3k; Pultec EQP-1: call; Ashly stereo para EQ: \$250; Orban 672A para EQ: \$400; Orban Triple de-esser: \$350; Orban de-esser: \$250; UREI LA-3A: \$800; UREI LA-4: \$375; UREI 1176LN: \$450; RCA 77: call; Neumann U87: \$1.2k; Shure SM7: \$250; Neumann U47 tube: call; Ashly FET 200 amp: \$350; UREI 813B: \$2.3k; dbx DX5 CD player (new): \$300.

**WE BUY AND TRADE!!!**

All used equip. warranted and calib. to factory spec. or your \$ back.

**(617) 924-0660**

**\*\*TUBE MICS\*\***

I always have the cleanest, best-sounding mics! Is your power supply unhappy? We'll build you a shiny new one.

Call or FAX Bill Bradley  
 (312) 751-1216.  
 FAX (312) 751-1217.

**Transformers,  
Plus...**

- Twin Servo Mic Pre's • 990 Opamps
- Boulder Power Amps • Phono Pre's
- DI Boxes • Circuit Design Consulting

*Deane's Leading Edge Technology*

**jensen transformers**  
 INCORPORATED

10735 Burbank Bl. • N. Hollywood, CA 91601  
 FAX (818) 763-4574 Phone (213) 876-0059  
 TELEX 6502919207 MCI UW

(M-Th. 9am-5pm Pacific time)

3M Model 56 2" 16-trk. w/autolocator & remote. Excel. work. cond. Audioarts console 24 in, 8 stereo subs, 16 mons, left & right main, slate, talk-back, tone osc., etc. Used only 30 hrs. Both units sold comp. w/all nec. cables & 256-pt patch bay. \$20k (818) 710-8141.

**Chung King Equipment Exchange**  
 Neve modules: Neve 8024 24x4. 2-trk Telefunken 1/2", 2-trk MCI 1/2", Carvin 16x2 \$1,000. 8-ch Neve rack, Neumann U87 \$1,250, Sony C-37A (mint) \$750; C-500 \$750. Various hand-held walkie-talkies, pro-type and FM units with base. Call (212) 219-8485. Contact John or Todd.

**For sale, all in mint condition: (1)** MCI JH-636 30 AF/LM mixing console (30 chan). Automation, plasma display, parametric equalizers, built in phase & send meters, phantom pwr supply: \$50k OBO. 24-trk MCI JH-24-24 tape recorder, remote cntrl: \$23,900 OBO. (2) 2-trk MCI JH-110-2-14 VP recorders, remote cntrl, 1/2" & 1/4" head assemblies: \$4,500 each; \$7,800 both. Fairlight CMI 8 series II SN1083222 musical computer system, \$17,500. Extensive outboard gear avail. Call Cay Gottlieb, (809) 352-7291, FAX (809) 352-4706.

**16 X 4 MIXER WITH MIDI**

16-chan., high-level audio mixer for synths, etc. Control level, bass, treble and pan by MIDI! Perfect for home studio or live uses. \$695 ea. Call Nixon Electronics, (208) 343-6809 for info on Midi-Pro 1000.™

**We need your used,  
clean 24-track!  
db Engineering**

Not just another broker!

We design and build studios, custom patch bays & racks. The only broker w/Otari & Tascam authorized service, now offers **Otari TC-50** center-track time code kit. **Adams-Smith 2600 systems** 3-machine demo system w/edit controller, sale \$6,995; Otari MTR-90 II, 24-trk, mint, \$32.5k; Otari MTR-12, 2-trk, mint, \$6k; Otari MC-70, 16-trk, exc., low hrs, \$13.5k; Otari MX-5050B, \$1,250; Soundtracs MR 32x8x16, mint, \$10.5k; Sound Workshop Series 30 26x24, w/bay & harness, \$8k; **List your for-sale items w/us free. New specials on Eventide H3000** Ultra-Harmonizer, **Tannoy** speakers & **Neumann** mics. **214 Lincoln St., Ste. 103C, Boston, MA 02134, (617) 782-4838.**  
 (Formerly NE Equip. Exchange.)

**FOR SALE  
OTARI 24-TRACK  
RECORDERS**

New MTR-90 Series II/2" 24-track. Full warranty. Used MTR-90 Series II/2" 24-track. Excellent condition. Call for details (215) 426-7354.

**Complete 24-trk package**

TAC/Matchless 26x24 w/288-pt. tt bay and prod. desk, Otari MX-80/24, Otari MTR-12 II w/CB-111 rmte, UREI 813C mon. w/2 sets mnts, Klark-Teknik DN 360 EQ. 2 Crown DC-300A amps, 24-trk snakes, etc. \$53,000. All equip. purchased new 1/88 and is in immac. condition. (616) 694-6322.

**BLEVINS AUDIO EXCHANGE**  
**SOUTH'S LARGEST BROKER**  
 "Your unused equipment is requested for our Nashville, TN, showroom." We have in stock: consoles, tape machines, outboard equipment, microphones, etc. Available immediately, the following items: Sony JH-24S, EMT 250 Reverb, MCI JH-400, JH-500 and JH-600 consoles, Otari MRT-90s, Studer 24s and lots more.

**CALL US TODAY**  
**SOMETHING NEW EVERY DAY**  
**BLEVINS AUDIO EXCHANGE**  
 1717 Elm Hill Pike, Suite B-8  
 Nashville, TN 37210  
 (615) 391-0429  
 FAX (615) 391-0456

NEOTEK Elite console, 32 inputs wired for 36, 4 stereo modules included. 7-ft. Steinway Grand piano, excellent condition. MCI/Sony 24-trk tape recorder, JH-24. Call Paul at (312) 225-2110 (days) or (312) 241-6885 (eves).

**Neve 8128** with Necam 96, 56 inputs, 2 spare faders, 2 spare power supplies, many extras. Very good condition... \$175,000. Call Mike, (516) 489-6177.

Spectra Sonics 1032-32 console w/32 inputs, 8 sub-groups, 6 aux buses, 288 patch point jack field, quad pan and quad monitor, talk-back and remote control. Used for less than 1 year. \$8,500/obo. Call Norm Cleary, (412) 621-1950, 9-5 M-F.

**Synclavier**—Full system with: velocity keyboard, expanded memory, MIDI, sampling, 20-meg hard disk, Kennedy tape drive, music printing and beautiful custom oak table/rack. First \$20k takes. Karen at (619) 451-6400.

Complete 16-track studio Tascam MS-16 w/dbx, remote, auto-loc. and stands. Mint cond., one home. Mated w/a Soundtracs 16x8x16 board, also mint, w/snakes. This duo has produced award-winning TV spots and movie trailers. \$10,500 for package. Call John at (212) 581-8560 days.

Fairlight Series III, 8 voice, 6 megabytes of memory, hard disk, 5.4 update, 8 months old, expandable, 190 megabytes on disk, upgraded Fairlight keyboard, fully serviced. Owner anxious to sell. (Studio sold.) \$37,000 or best offer, call (416) 596-8216 or (416) 340-9472.

**FAIRLIGHT 2-X, BLACK FINISH, MIDI/SMPTE, CASES, MANY OPTIONS, STUDIO USE ONLY, EXCELLENT CONDITION, ONLY \$9,100. CONTACT SHANE KEISLER, (212) 687-2232.**

JBL 4412 studio monitors, \$650/pair. Yamaha SPX90II, \$425. Nakamichi MR-1 cassette deck, \$475. Crown D-150M, \$150. Oberheim Matrix-12 w/12 individual outs, \$4,500. All pieces except Crown amp are brand new. (314) 894-8079, Mike.

**FREE TRADE SALE**

Sony MXP-3000 new/loaded 36 I/O patch bay, disc-based automation: \$112,500 U.S. Ventura Quad-8 28 I/O 3-band sweep EQ (API design) 6 VCA subs, 4 full EQ returns used in no smoking/drinking atmosphere: \$28,700 U.S. Soundtracs CM4400 28x12x24 2 digital routing, mute automation, full patch: \$25,000 U.S. Soundtracs CP6800 console new 32x12x24 automated mute, effects routing, punch in/out external device events automation: \$45,000 U.S. Sound Workshop Series 30 recording console 18 I/O 3-band sweep EQ 28-frame full patch: \$6,500.

**TELE-TECH ELECTRONICS**  
 Largest selection of new and used audio equipment north of the border. 920 Denison St., Unit 11, Markham, Ontario L3R 3K5, Tel. (416) 475-5646. FAX (416) 475-5684.

**SPEAKERS**

UREI 811 (used) \$800 ea.; Gauss Co-Ax (used) \$900 ea.; Fostex 765 (demo) \$300 pr.; Fostex 780 (demo) \$400 pr.

**RECORDERS**

Ampex ATR-104 2 or 4 \$6,700; Ampex AG-440 \$1,500 ea. (3); Otari MTR-12C (like new) \$7,000; Fostex E-22, 1/2", 3 head \$3,200; TEAC 3-head cass. V570 \$249.

**MICROPHONES**

AKG 414s new & used as low as \$500; E-V PL20s (new) \$299; Shure SM58 (new) \$105.

**CONSOLES**

Studiomaster V 24x4 (demo) \$3,200; Seck 62 6x2 (demo) \$800; Soundtracs FM 8x4 (demo) \$2,200; Soundtracs MR 24x4, 6 aux. \$4,995. Call for complete list.

**OPUS**

Recording & Equipment Co., 4262 Grand Ave., Gurnee, IL 60031, (312) 336-6787. FAX: (312) 336-6895.

Neumann KM88, \$600; Sony C-500, \$750; Sony PCM-F1, \$1,500; Scully 280B (mint w/spare 2-trk. head stack), \$1,900; 3M79 24-trk w/locator, \$13,500; LinnDrum new in box, \$750; Shure SR107 EQ, \$160 ea.; E-V XEQ1, \$150 ea. Call Dan, (215) 432-0520/days, (215) 776-1455/eves.

Yamaha PM-1000, 32-input, 4-output monitor matrix EQ/Channel in/out switch. Great PA board \$1,800. 3M79 24-trk. Spare power supply, select tape II, parts galore, \$11.5k. Call Mark at (213) 463-1604.

Ampex ATR-102 2-trk, metal heads, pedestal, aux. amps., 4-speed. 3.75, 7.5, 15 & 30 ips. (2) Electro Sound semi-automatic cassette loaders w/ vacuum pumps. For information, call (508) 777-8836.

**24-TRK STUDIO PACKAGE**

Amek/TAC "Matchless" console; Ampex MM1200 16/24-trk; Otari MTR-10; Scully 280s; 7 ft. piano; Emulator II; reverbs; mics; monitors; processors; test tapes; test equip;

amps; instruments; and more. All exc. cond. by piece or whole. Call (412) 221-7025.

**Equipment Rental**

**DESIGN FX AUDIO**

DIGITAL AUDIO RENTALS  
 Specializing in digital tape machines, reverbs and effects processors. Technical consultation included.  
**213/838-6555**  
 Outside CA 800 441-4415  
 PO Box 491087  
 Los Angeles, CA 90049

On-Call

24 Hours



599 Eleventh Ave., NYC, 10036  
 (212) 582-4400

**The Best That Money Can Rent**

- Digital Multitrack
- Time Code Equip
- PA Equip
- Wireless Mikes
- Outboard Equip
- Mixing Consoles
- Walkie Talkies
- Video Playback

**AUDIO AFFECTS**

STUDIO EQUIP. FOR HIRE  
 Technician on staff 7a.m.-1a.m.

Open 7 days a week  
 Digital Tape Machines,  
 Synclavier Systems,  
 Effects Processors, Reverbs  
 (213) 871-1104 (818) 980-4006

**UNDERGROUND SOUND PRO AUDIO RENTALS**

**MITSUBISHI X-850** (Apogee Enhanced)  
 \$500/per day \$2,000/per week

| REVERB RACK      | EQ RACK            |
|------------------|--------------------|
| 2-AMS RMX16      | Focu-rite 115      |
| 1-AMS DMX-15     | Massenburg EQ      |
| 2-480 L Lexicon  | (2) Pultec EDP-1A3 |
| 1-Lex PCM70      | (2) LA-2A          |
| 1-T.C. Elect     | (4)-Aphex E Q      |
| 2-Yamaha SPX-90I | (6)-Aphex Comp     |
| \$225/day        | L.T. Sound         |
|                  | (2)-DBX 160 lim    |
|                  | DBX Boom Box       |
|                  | \$195/day          |

\*ALSO VINTAGE TUBE GEAR

Prices do not include sales tax or postage. All prices subject to change.  
 PHONE: (615) 321-0956 Nashville, TN

**PULTECS!**  
 WE RENT, BUY AND SELL VINTAGE GEAR: PULTECS, FAIRCHILD, NEVE, API, ETC.  
 (213) 456-3863

**Pro Sound Reinforcement Mixing Console Rentals:**  
 Gamble Series EX 56x16x2  
 Yamaha PM-3000 40x8x2  
 Gamble SC 32x16 monitor  
 Studiomaster 24x8 monitor  
**Hi-Tech Audio Systems Inc.**  
 Good Rates—New Equipment  
 (415) 726-2428

**DISK-BASED WORKSTATION**  
 DAR SoundStation II digital audio workstation with full time code implementation, time compression/expansion, track slipping, analog & digital I/O. Operator provided.  
**SOUND DESIGN**  
 (805) 965-3404

**Equipment Wanted**

SSL 4000 E w/Total Recall 56 frame loaded. Must have right side patch bay. Prefer light meters. (401) 247-0218.

Wanted 2-inch 16-track Studer

Preferably with remote. Call or write to Robby Jarvis, Humboldt Records, PO Box 713, Trinidad, CA 95570, (707) 677-3305.

**Instruction**

**INSTITUTE OF COMMUNICATION ARTS.** Commercial Music Performance, Audio Engineering/Prod., Video Prod., Sound Reinforcement, Entertainment Bus., Music Theory and Arrang. Instrument & Voc. Study, Electronic Music & MIDI One/Two Year Cert. Progs. ICA is Recognized By U.S. Dept. of Ed./Eligible for Guar. Std. Loans. I.C.A. Institute, 34 West 8th Avenue, Vancouver, B.C. V5Y 1M7, (604) 876-0451.

**RECORDING INSTITUTE**  
 School for recording engineers. L.A./Hollywood area. Program emphasizes 24-track recording and mixing and includes video. Hands-on! Free catalog. 14511 Delano St., Van Nuys, CA 91411 (818) 994-9976.

**EDUCATIONAL VIDEOS**  
 12-hour sound mixing/recording course: \$239, 2-hour course: \$39; 2-hour MIDI course \$39; plus shipping/handling. Visa/ MC/check. For brochure: RECORDING ASSOCIATES, 5821 SE POWELL, PORTLAND, OR 97206, (503) 777-4621.

**LOS ANGELES RECORDING WORKSHOP**

**5-Week Intensive Recording Engineering Program**

For FREE Catalog & Soundsheet  
 12268-X Ventura Blvd.  
 Studio City, CA 91604  
**818/763-7400**

Our new Spring 1989 Mix Bookshelf Catalog is now available! Write or call now for your FREE copy of the most comprehensive selection of  
 —CONTINUED ON NEXT PAGE

—CONTINUED FROM PREVIOUS PAGE—  
books, tape courses, music software, SFX libraries, desktop video software, databases and more.

**MIX BOOKSHELF**  
6400 Hollis Street #12  
Emeryville, CA 94608  
CALL TOLL FREE: (800) 233-9604

## Maintenance Services & Repair

**RCA MICROPHONES** — Repair service on all models. Complete sound and cosmetic restoration. 35 yrs. experience with RCA. ENAK Microphone Repair, 420 Carew Avenue, Pitman, NJ 08071. (609) 589-6186.

**NY TECHNICAL SUPPORT, LTD.**  
Factory Trained & Recommended  
Ampex/MCI/Neve/Otari  
Sony/SSL/Studer/3M/Trident  
**CALL GREG HANKS**  
Service/Design/Consults/Installs  
35 Hardscrabble Hill  
Chappaqua, NY 10514  
(914) 238-4171

## TLM ELECTRONICS INC

343 MANVILLE RD  
PLEASANTVILLE, NY 10570

### Pro Audio Service

- Consoles ● Multi-Trax
- Amplifiers ● FX equip

- Repairs
- Modifications
- Performance Testing

(914) 769-6423

Studiotech  
Repairs/installations/consultation  
modifications  
(212) 831-5259

Audio heads, new & used for  
ACES, Ampex, Lyrec, MCI, 3M,  
Nagra, Otari, Soundcraft, Studer,  
Tascam, Telefunken and Trident.  
Also relapping & optical alignment.  
Bob Yauger at UCA, (315) 733-  
7237. FAX: (315) 733-3097.

**MAGNETIC RECORDING HEADS—**  
RELAP/REPLACEMENT for Audio,  
Video, Time Code, Duplication. 29  
years of head design experience.

350 N. Eric Dr., Palatine, IL  
60067; tel. (312) 358-4622.

Menken & Associates Inc.  
Charlotte, N.C.  
Call Chip Garrett  
(704) 537-1025

Room tuning & design consultant  
Selective Maintenance  
Equip. Brokerage & Honest Advice  
N.C., S.C., VA Areas

## Music Products/Software

### FM STEREO TRANSMITTER

Transmit your VCR/CD/tape to any  
FM stereo radio. One chip does it all.  
Free schematic and info. Send a self-  
addressed, stamped envelope to DJ  
Inc., 847 "A" Second St., Suite 113,  
NY, NY 10017.

### IBM MUSIC FEATURE CARD!

Option card with 8-voice, multitim-  
bral MIDI synthesizer on board. In-  
cludes 240 pre-programmed Yama-  
ha sounds, 96 programmable patch-  
es and a MIDI in/out/thru interface.  
Use two cards to double capacities.  
An all-in-one MIDI studio for IBM  
and compatibles for only \$495. Soft-  
ware available for recording, arrang-

ing and educational needs. Pack-  
ages recommended. Dealers, cata-  
logers & VARs call for discount  
schedule. **Distributed by Mix Book-  
shelf** 6400 Hollis St #12, Emeryville,  
CA 94608, (415) 653-3307, (800)  
233-9604.

## Recording Services

DIGITAL TRANSFERS



CD MASTERING

DIGITAL EDITING

CD PRODUCTION

db PLUS

DIGITAL SERVICES INC.

BOX 694 LYNBROOK, N.Y. 11563

(516) 872-2325

## Records, Tapes & CD Services and Supplies

Disc Mastering and Record Pro-  
duction LPs, EPs, 45s—Plating,  
Labels, Pressing, Jackets.

**DIGITAL NOW AVAILABLE!**  
**THE CUTTING EDGE**

Box 217M  
Ferndale, NY 12734  
(914) 292-5965

### REAL TIME

Best Quality Cassettes using Naka-  
michi decks only. Custom-loaded  
Agfa or BASF Chrome. Label and in-  
sert printing, shrinkwrap, blank tapes.

**SUPERB QUALITY**  
**AT LOW PRICES**

Uni-Sette, Inc.  
1854 Fulton Ave.  
Sacramento, CA 95825  
(916) 485-9534.

**FACTORY DIRECT**  
**PRICES ON 3M TAPE**  
**& AMPEX TAPE**

Discounts available.

**We can & have saved you**  
**money!** Call us—you'll like us.  
We're in the business, just like you.  
STUDIOWORKS is also a suppli-  
er of pro recording equipment.  
(800) 438-5921 & (704) 375-1053.

—Crystal Inc.—

Custom  
Duplicated  
CASSETTES

AS LOW AS  
**43¢**  
EACH PLUS SET UP

- DOLBY HX PRO / ELECTRO SOUND
- Clear Shells and Boxes
- Premium Tapes
- Digital or Analog Master
- Direct Cassette Imprinting, Color Inserts, Test Tapes and Pure Chrome also available

Phone  
Toll  
Free:

1-  
800-  
826-  
6540

In Tenn:  
1-  
615  
843-  
0717

8002 Middle Valley Road • Hixson, TN 37343

## How to Place a Mix Classified

**Please print or type in CAPITAL LETTERS and lower case.** There are 8 lines to the inch and approximately 24 CAPITAL letters per line or 32 lower case letters. \$80 per inch —1" minimum. Additional lines \$10 per line. **BOLD TYPE** or Black Border \$10 per line. Gray screen \$15 extra. Logos or display advertising up to 4" will be charged at \$100/inch. Logos or display advertising must be camera ready (width is 1-5/8" or 10 picas). Frequency discount rates available. Call for information. **Payment by check, money order or charge must accompany ad. DEADLINE is the 15th of the month, 6 weeks prior to publication.**

### Categories Available (check one)

- |                                                 |                                                  |                                                |
|-------------------------------------------------|--------------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> Acoustic Consulting    | <input type="checkbox"/> Equipment Rentals       | <input type="checkbox"/> Records, Tapes & CD   |
| <input type="checkbox"/> Business Opportunities | <input type="checkbox"/> Equipment Wanted        | <input type="checkbox"/> Services and Supplies |
| <input type="checkbox"/> Employment Offered     | <input type="checkbox"/> Instruction             | <input type="checkbox"/> Recording Services    |
| <input type="checkbox"/> Employment Wanted      | <input type="checkbox"/> Maintenance Services    | <input type="checkbox"/> Studios for Sale      |
| <input type="checkbox"/> Equipment for Sale     | <input type="checkbox"/> Music Products/Software | <input type="checkbox"/> Miscellaneous         |

Co. Name \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

**I am paying by (check one):**  VISA  MASTERCARD  AMERICAN EXPRESS

Card #: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Check or Money Order #: \_\_\_\_\_ Amount Enclosed: \$ \_\_\_\_\_

### Mail to:

Mix Classified, 6400 Hollis St. #12, Emeryville, CA 94608

(415) 653-3307

FAX: (415) 653-5142

## Disc Makers

LP's, CD's, and Cassettes in Convenient, Money-Saving Packages

Complete Manufacturing

CALL TODAY (Toll free) **1-800-468-9353**  
 IN PA (215) 232-4140  
 A Division of DISC MAKERS, Audio and Video Labs, Inc.  
 1328 NORTH 4TH ST.  
 PHILA., PA 19122

**TRAXX RECORDING PRODUCTS**  
 24 Crestway - KC  
 New Fairfield, CT 06812

- Real-time dup. & full-svc. pkg.
- Custom-loaded cassettes & sup.
- High quality, fast turnaround

For Free Catalog call: (203) 746-3561.

# D.A.T. In Stock!

- Digital Audio Tape In Stock
- Analog Tape, Audio Accessories
- Phone In Order, Ship Same Day
- Great Quality — Great Price

Call us at  
**(313) 662-0669**  
 for prices on tapes & duplicating

## World Class Tapes

Audio Tape Distributors & Duplicators

670 Airport Blvd., Suite 1  
 P.O. Box 7611  
 Ann Arbor, Michigan 48107  
 (313) 662-0669  
 (1-800-365-0669 outside Michigan)

**Quality Audio Cassettes**  
 Custom-length cassettes for your duplication and mastering needs.

Type I C-45 \$51 C-60 \$57  
 Type II C-45 \$61 C-60 \$71

We GUARANTEE our tapes!  
 LUNA TAPES LTD.  
 NEAPOLIS, OH 43547-429  
 (419) 875-6240

**PROFESSIONAL RECORDING SUPPLIES**

We are a major wholesale distributor of Ampex, Agfa & 3M reel-to-reel mastering tape (1/4" to 2"). We also stock broadcast videotape, assorted reels and boxes, splicing/leader tape and pre-packaged cassettes. We load bulk cassettes in custom lengths using a variety of tape brands. Please call or write for our FREE catalog.

**Advance Recording Products**  
 7190 Clairemont Mesa Blvd.  
 San Diego, CA 92111  
 (619) 277-2540  
 Inside CA: (800) 858-1061  
 Outside CA: (800) 854-1061  
 Visa/MC Accepted

**The "Pop Rock" drum sample compact disc.**  
 "Chock-full of the most usable drum sounds we've heard yet, with enough variety to suit many different styles of music." *Key-board review* Oct. '88

Available now at \$99 from East-West

8515 Hollywood Blvd., Los Angeles, CA 90069 U.S.A. Phone (213) 650-8972, FAX (213) 654-4539.

## EUROPADISK LTD.

**AUDIOPHILE QUALITY**

**DMM MASTERING/PRESSING**  
**CASSETTE DUPLICATION**  
*On Finest European HX-Pro Equipment*  
**CD & GRAPHICS PACKAGES**  
**DIGITAL TRANSFER STUDIO**  
*CD Master Tapes*  
*Neve Digital Console*  
*Sony Digital Editing*

**EUROPADISK, LTD.**  
 75 Varick Street  
 New York, NY 10013  
 (212) 226-4401

**3M AUDIO TAPES**  
 Prompt Service—Low Prices  
 1/4" pancakes, 1/4"-2" reels, accessories, Scotchcarts & cassettes.  
 Orders Shipped Within 24 hrs.

**R & M PRO AUDIO**  
 1080 Pacheco, S.F., CA 94116  
 (415) 665-8480

## AAPEX

**ULTIMATE FIDELITY**  
 The World's largest Nakamichi real-time cassette duplication system. Full service packaging. 50 to 50,000 qty. Outside CAL, call toll free (800) 323-AAPX or (415) 492-1300  
 —Call AAPEX today!

**"STATE-OF-THE-ART"**  
 "Cassette Duplication Service"  
 We offer the highest quality cassette duplication available on ferric, chrome or metal tape. Competitive prices and fast turnaround. When you're ready for the best call: (219) 936-2015 or write: Cup Of Water Productions, 13780 12th Rd., Plymouth, IN 46563.

**CASSETTE DUPLICATION**

*One to a Million*  
 High Speed—Real Time—Blank Cassettes  
 Recording Tape & Supplies

**Jackson Sound Productions**  
 3897 So. Jason, Englewood, Colorado 80110  
 1-800-621-6773 (303) 761-7940

## Studios For Sale

Private recording studio complex w/reception/office/production rooms/waterfall/sundeck. Under remodeling. Includes 3-bedroom house \$175,000. Equipment extra. Located in Southern California. Ask for Danny, (619) 352-5774.

**Producers—Engineers—Bands**  
 Own a month or a week of World Class Studio Time  
 For the next 5-10 years!  
 High Return on Investment  
 Quality Acoustical Design  
 SSL 4000G  
 Comfortable Mountain Setting  
**Time Packages Now Available**  
 (206) 793-2614

Hollywood Recording Studio  
 Radio, TV, film and album clientele. 12 years, same great Sunset location. 1,000 sq.ft., A.C., low lease, private parking, MCI 2" 16-trk, Ampex ATR, UREI, Kawai grand piano, Sound Workshop. \$75k. (213) 463-2375.

## Miscellaneous

**TRACK SHEETS**  
**BOX & REEL LABELS**

- Cassette Labels & Inserts
- Drum Machine Sheets
- Alignment Plaques
- Plus many other items

PRINTED WITH Your Studio Name Address & Phone

**FREE CATALOG**  
 of specialized forms for the recording & music industries

**STUDIOFORMS Co**  
 186 Glen Cove Avenue, Suite 201/M-43  
 Glen Cove, NY 11542  
 (516) 671-1047

**Best Prices**  
**Best Service**  
**Best Names...**

**AMPEX AGFA**  
**ANAFE**  
**FOSTEXmaxell**  
**NEUTRIK Switchcraft**  
**LEADER3M**

Call for our FREE Audio Mini Catalog filled with Professional Tape, Equipment, Accessories and Supplies.

HUDSON AUDIO VIDEO ENTERPRISES, INC.  
 309 Power Ave., Hudson, NY 12534  
 800-999-HAVE • 518-828-2000 (NYS)

## ACOUSTIC FOAM

**GIANT**  
 54" x 54"  
**\$19.99**  
 Per Sheet!!

**KILL NOISE QUICK!** Soundproof studios, vans, rooms with super-effective, E-Z mount, 2" thick studio gray Markertek. Immediate shipping. Add \$3.50/sheet shipping. NYS residents add 7% tax. MC/Visa/Amex/COD Check Terms. 3" sheets also available at \$29.99.

**800-522-2025** (In NY 914-246-3036)  
 America's most unique catalog for the professional!

**MARKERTEK**  
 145 Ulster Ave., Saugerties, NY 12477 USA  
**VIDEO SUPPLY**

—FROM PAGE 183, GRAMMYS

where the commercials were inserted and uplinked back to the satellite for worldwide distribution. Allen was pleased with the cooperation from CBS-TV's New York and Los Angeles operations.

The in-line console arrangement used both main house mixing consoles facing the stage so the aural cues would be consistent (not as simple as it seems,

with space being at a premium at the Awards). Three consoles were used for the house mix and two more for the foldback.

Allen was enthusiastic about the sound reinforcement work at the Awards. He stated, "It was, by far, the best sound ever heard at the Grammy Awards and the best sound ever heard at the Shrine."

What about next year? "We will be back at the Shrine, again with

surround sound, but with more equipment and maybe more consoles. We are real happy with the results of this year's effort." ■

*Mike Klasco is a consulting engineer for Menlo Scientific in Berkeley, Calif. Additional information for this article was provided by Leslie Ann Jones for the National Academy of Recording Arts & Sciences, Inc.*

# One Step Ahead

Coming in Mix:

June 1989

## Remote Recording & Sound Reinforcement

• **Directories:** Sound Reinforcement Companies; Remote Recording Services

• **Special Feature:** Sound Systems 2000—A Look Ahead at Futuristic System Design

• **Sound on Stage:** Summer Festival Sound Systems—A Mixer's View of Montreux and Chicago Jazz Festivals

• **Engineer's Forum:** Remote Engineers Discuss Drum Miking; Includes Tips from Roger Nichols

• **Equipment Spotlight:** Main Loudspeaker Systems

• **Bonus Distribution:** NAMM Music & Sound Expo, Chicago, June 17-20

PLUS!

Elvis Costello & Paul McCartney, John Potoker, Ravi Shankar, Sandy Bull, Omnimax

### Attention Advertisers:

Deadline for ad placement is the seventh of the month, two months prior to publication. Call (415) 653-3307 for a 1989 *Mix* Editorial Calendar, space reservations and complete advertising information.

# MIX

THE RECORDING INDUSTRY MAGAZINE

# ADVERTISERS INDEX

## PAGE ADVERTISER

- 80 A & R Record and Tape Mfg. Co.  
151 Adams Smith  
105 Agfa Corp.  
120 Akai Professional  
IBC Allen and Heath  
13 Alpha Audio Acoustics  
31 Amek Consoles/TAC  
45 American International Audio Video  
85 American Pro Audio  
103 AMP Services  
147 AMS Industries  
61 API Audio Products, Inc.  
96 Applied Research & Technology (ART)  
60, 142 Sam Ash Music Stores  
58 Sam Ash Professional  
95 Audio Animation  
150 Audio Gallery  
150 Audio Images  
42 Audio Logic  
99, 101, 103 Audio Techniques  
102 Berklee College of Music  
78 The Bertech Organization  
14 Beyer Dynamic, Inc.  
22 Brainstorm Electronics, Inc.  
21 Bryston  
28 Burlington Audio/Video Tapes, Inc.  
110 Cal Switch  
15 Carver Corporation  
127 Carvin Corporation  
109 C.A.S. Productions  
13 Clarity (NY)  
124 Clarity Cassette Duplication (ME)  
88-89 Commodore Amiga  
116 Community Professional Sound System  
114 Crest Audio  
128 CSE Audio, Inc.  
98 C T Audio  
29 D & R USA  
10 DAR Digital Audio Research  
141 The DAT Store  
136 DDA/Klark Teknik  
27 Digidesign  
135 Dolby Laboratories, Inc.  
39 Drawmer  
83 Dynacord  
117 EAR Professional Audio Video  
52 E.A.R.S. (Electronic Acoustic Research Systems)  
67 Eastern Acoustic Works (EAW)  
99 Eastern Standard Productions (ESP)  
122 Electro Voice  
46 Europadisk, Ltd.  
50 Everything Audio  
110 First Light Video Publishing  
62 Forge Recording Studios  
90 Foxtec Corporation of America  
125 Full Compass Systems  
102 Fullersound, Inc.  
138 Gold Line/Loft  
35 Gotham Audio Corporation  
68 The John Hardy Company  
81 HBO Studio Productions  
36 Hot House Professional Audio  
152 Hybrid Arts, Inc.  
53 IAN Communications Group, Inc.  
101 Institute of Audio Research  
80 Institute of Audio Video Engineering  
131 Intersonics, Inc.

## PAGE ADVERTISER

- 119 JBL Professional  
12 Josephson Engineering  
28 JRF Magnetic Sciences  
86 KABA Research & Development  
79 Leonardo Software  
71 Lexicon, Inc.  
144 Loran  
78 LT Sound  
69 Manny's Professional Audio  
43 Marathon Recording  
108 Marion Systems Corp.  
109 Martin Music Technologies  
23 George Massenburg Labs  
118 McCauley Sound, Inc.  
30 Midia  
25 Mitsubishi Pro Audio Group  
154 155 Mix BusinessPages!  
51, 137, 160 Mix Publications  
53 MusiCity  
100 National Sound & Communication Association (NSCA)  
11C 1 Rupert Neve, Inc.  
47 New England Digital (NED)  
44 Northeastern Digital Recording, Inc.  
68 OmniMusic  
113 Orban Associates  
7 Otari Corporation  
117 Peabody Conservatory of Music  
123 Penn Fabrication  
157 Platinum Island Recording Studios  
76 Power Play Studios, Inc.  
142 The Pressing Plant  
91 Prosonus  
98 Pulizzi Engineering  
107 QCA, Inc.  
54 Quad Recording Studios  
100 Quantum Sound Studio  
18 Ramsa  
130 Rane Corporation  
128 The Recording Workshop  
70 Rhythm City  
32 33 RolandCorp US  
139 Sanken  
62 Seam Tech  
BC SECK  
106 Sennheiser  
20 Sheffield Audio Video Productions  
45 Shure Brothers, Inc.  
55, 57 Solid State Logic (SSL)  
9, 163 Sony Professional Audio  
24 Sound Ideas  
22 Studio Consultants, Inc.  
143 StudioMaster, Inc.  
185 StudioWear  
77 Summit Audio, Inc.  
73 Symetrix, Inc.  
37 Tannoy  
63 TASCAM  
145 Telex Communications, Inc.  
107 Thoroughbred Music, Inc.  
60 Time Lord  
72 Trident  
148, 149 TUBE TECH  
111 Valley International, Inc.  
124 Vertigo Recording Services  
16 17 WaveFrame Corporation  
185 Whirlwind USAudio  
84 White Crow  
70 Words & Deeds, Inc.  
129 Yamaha Professional Audio

## **BUILDING ON INTEGRITY**

*Have you checked on  
Allen and Heath recently?  
Four complete new  
series of sound mixing  
consoles have joined our  
famed Sigma range.*

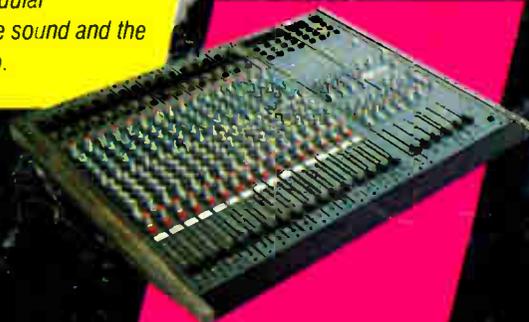
### **Saber**

*16 track with on board  
Midi Mute processors.  
Three desk sizes available in  
studio and live sound versions.*



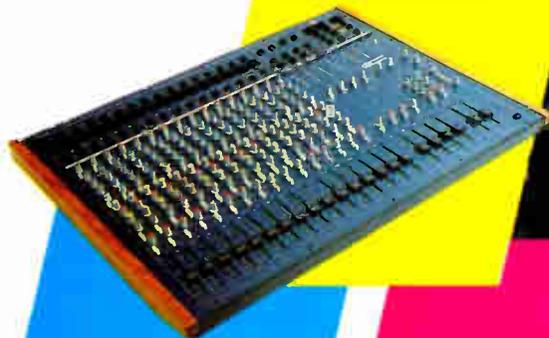
### **SRC**

*4 group modular  
series for live sound and the  
budget studio.*



### **SR plus**

*An update of our  
popular SR range, now with  
extra quality features.*



### **Scepter**

*Rack mount mixers  
Send for our new  
technical brochures*

*Have you checked on  
Allen and Heath recently?*

### **U.K.**

*69, Ship Street  
Brighton BN1 1AE  
Tel: 0273 24928  
Fax: 0273 821767  
Telax: 378235 M31AHB G*

### **U.S.A.**

*5 Connair Road  
Orange  
Connecticut 06477  
Tel: (203) 795 3594  
Fax: (203) 795 6814*

**ALLEN  
&  
HEATH**



# WELCOME TO THE FAST TRACK

Your music sounds better than ever. But until you get someone to listen, talent alone won't put your career on the fast track. You've got to sound good on tape, too. Ask any talent agent or A&R person. They'll tell you, that without the right production values, it's hard to make great music stand out in a world full of mediocrity.

Having the right equipment can make all the difference. Whether you're getting ready for a session or polishing your demo, the Seck 1282 and 1882 recording consoles can give you more quality, features, and capabilities than many expensive mixers, in a compact and very affordable package.

To succeed in this business, you have to be more than a performer. You must also be a producer and an engineer. That's why Seck consoles were designed to let you focus on your music, not the mechanics. Input channel controls are laid out logically, with offset knobs for quick adjustments. All connectors are in plain view for quick and efficient patching.

Seck consoles are right at home in your studio. These 8 buss

boards include features like three band mid-sweep EQ, in-line monitoring, solo and stereo LED meters. And, Seck consoles make mixing with effects simple. You can layer effects through 6 aux busses and 4 aux returns, plus use the pre-fader inserts to enhance individual tracks.

For eight or sixteen track recording, Seck consoles are versatile enough to make your job easy, yet are rugged enough to take on the road. Features, size and rugged construction combine to make the 12 input model 1282 and 18 input model 1882 ideal for the sophisticated home studio and double nicely for sound reinforcement.

So remember, you'll find the on-ramp to the fast track is as close as your nearest Seck dealer.

## SECK

JBL Professional  
8500 Balboa Boulevard  
Northridge, CA 91329

©1989 JBL, Incorporated A Harman International Company