

FEBRUARY 1982
\$1.50

THE RECORDING INDUSTRY MAGAZINE

Mix

INTERVIEW
LEB PAUL

Listings:
Southeast
Studios.

Special Report:
Digital Synthesizers

Dave Edmunds

John Meyer

Record Reviews



EXPAND YOUR HORIZONS

You've got the talent! So why let the console you're about to buy limit your potential? As your studio grows and your demands increase, the **TAC 16/8/2** grows right along with you. It's State of the Art technology, designed and built with expandable capabilities to accept additional 8 channel expansion modules up to a maximum of 48in/24 monitor.

The **TOTAL AUDIO CONCEPTS, TAC 16/8/2** is everything you want in a mid-size console.

PRICE: Now \$7920 thanks to the current strength of the U.S. dollar versus the British pound

You can get all the details and information with a phone call to one of our dealers... They'll be happy to help you "Expand Your Horizons"

TAC

TOTAL AUDIO CONCEPTS

Islington Mill, James Street
Salford M3 5HW England
Phone 061-834 6741 • Telex 668127

EVERYTHING AUDIO

16055 Ventura Boulevard, Suite 1001
Encino, California 91436
Phone (213) 995-4175 • Telex 651485

MARTIN AUDIO VIDEO

423 West 55th Street
New York, NY 100
Phone (212) 541-5900

WESTBROOK AUDIO

11836 Judd Court, Suite 33
Dallas, Texas 75243
Phone (214) 699-1203

FEBRUARY 1982



Cover:
Studio A, Cheshire Sound Studios, Atlanta, GA.
Photo: Rick Diamond.

Atlanta's fast growing studio complex, Cheshire Sound Studios, is capable of handling the requirements of the most discriminating clients. With MCI console and Ampex recorders, the cedar appointed Studio A is a fully automated 24 track room with dbx and Dolby noise reduction and a full complement of outboard equipment.

VOLUME SIX, NUMBER TWO

The Mix is published at 2608 Ninth St., Berkeley, CA 94710 and is ©1982, by Mix Publications, Inc. This is Volume Six, Number Two, February, 1982. The Mix (ISSN 0164-9957) is published monthly. Subscriptions are available for \$18.00 per year. Single or back issue price is \$2.50. Subscriptions outside U.S.A. are \$22.50. Please address all correspondence and changes of address to the MIX, P.O. Box 6495, Albany Station, Berkeley, CA 94706 (415) 843-7901.

Controlled circulation postage paid at San Francisco, CA (USPS 473870), and at Berkeley, CA (USPS 445070). The Mix is distributed in recording studios, pro audio stores, music stores and other related businesses. If you have a recording or music related business and would like to distribute the 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 mimeograph or any other printed means, without written permission of the publishers.

DEPARTMENTS

- 4 INSIDE TRACKS
- 4 FEEDBACK
- 6 CURRENT
- 8 SESSIONS
STUDIO NEWS
- 12 PROGRESSIONS
LES PAUL
by Larry Blakely
- 14 STUDIOSCOPE
by Dennis Buss &
Chris Haseleu
- 28 PRODUCERS' DESK:
EDDIE OFFORD
by James Riordan
- 50 THE BONZAI ZONE
by Mr. Bonzai
- 70 PREVIEW
- 73 READER SERVICE
- 78 CLASSIFIEDS

LISTINGS

- SOUTHEAST
RECORDING STUDIOS
- 36 LOCATION INDEX
 - 38 4 & 8 TRACKS
 - 40 16 TRACKS
 - 42 24 TRACKS

AUDIO

- 30 DIXIE SAMPLER
by Sam Borgerson
- 52 ARTIST STUDIOS:
TRIUMPH'S METAL
WORKS
by David Gans
- 54 SOUND ON STAGE:
JOHN MEYER

MUSIC

- 17 SPECIAL REPORT:
DIGITAL
SYNTHESIZERS
by David Gans
- 57 DAVE EDMUNDS
by Bruce Dancis
- 62 MUSIC NOTES
- 75 OFF THE RECORD

VIDEO

- 67 VIDEO INTERFACE
by George Petersen
- 68 VIDEO NEWS
by Mia Amato



Dixie Sampler
Page 30



Digital Synthesizers
Page 17



Dave Edmunds
Page 57

PUBLISHER/EDITOR
David M. Schwartz

PUBLISHER/MANAGING EDITOR
Penny Riker Jacob

ART DIRECTOR
Tim Gleason

ADVERTISING DIRECTOR
Hillel Resner

CONTRIBUTING EDITORS

DESIGN/PRODUCTION
Debbi Russell

CLASSIFIED DEPARTMENT/
STUDIO SERVICES
Gale Rosenberg

Mia Amato
Larry Blakely
Mr. Bonzai
Dennis Buss
Bruce Dancis
David Gans
Chris Haseleu
Tom Lubin
Bruce Pilato
James Riordan

TYPESETTING
Susan George
Beverly Sommerfeld

ADVERTISING
REPRESENTATIVE
Steve Salyer

PRODUCTION MGR/TRAFFIC
Ellen Goldstein

CONTROLLER
Mike Stevens

ADMINISTRATIVE ASST
Mary Holland

EDITORIAL ASST
George Peterson

INSIDE

Our first goal at Mix Magazine is to serve the professional recording and sound production industry as the forum for relevant information and essential communications. This is our challenge today, as it has been since we started. This is also why listings are such a major part of our magazine. Our listings reflect the state of the industry in a very special way. Without headlines and fanfares they let us know what the industry looks like.

We plan to expand our listings in many ways this year. Besides recording studios, look for us to feature sound reinforcement companies, digital recording services and video post-production, as well as studio designers and suppliers, mastering studios, pressing plants, duplication facilities and recording schools.

We want to do a good job with these listings, so we're asking for your help. If you fall into one of the above categories and aren't sure whether you are on our mailing list, please call or drop a note here to Mary's attention and tell her what you do and how we can get in touch with you. And then Mary will tell Amos, our computer, the good news.

COMING:

IN MARCH

- Northeast Studios
- Microphones
- Phil Ramone
- Spyro Gyra
- John Boylan
- The Cars

IN APRIL

- Video Sweetening
- Satellite Rock
- Unitel
- Ray Dolby
- Island Video
- Earth, Wind & Fire

TRACKS



Dear Mix,

I would like to draw your attention to a statement in the book "The Platinum Rainbow." This book claims to be an informative guide to a career in the music industry. In the chapter of recording engineers the authors, Bob Monaco and James Riordan (a regular columnist and contributing editor to "The Mix"), offer the following "advice":

"Like everything else, when it comes to the recording engineer, you're going to get what you pay for. A \$10 an hour engineer gives you a \$10 an hour tape. A good engineer costs anywhere from \$25 to \$50 per hour."

One can only assume from this that since an engineer costs more per hour, he is obviously more knowledgeable and magically able to deliver a better sounding tape. This is sheer nonsense!!! The difference between a competent \$10 per hour mixer and one that costs \$50 per hour is often a question of how many gold records one has cut more than anything else. And being in the right place at the right time is often the critical factor in determining just who gets the gold and who doesn't. Obviously, not all the \$10 per hour engineers *are* competent, but to judge all the *thousands* of engineers who charge less than \$25 per hour to be "not good" simply on the criteria that they don't charge *more* is beyond absurd.

Dan Alexander
Hyde St. Studios
San Francisco, CA

Reply to letter from Dan Alexander:

Every writer's nightmare is to be quoted out of context and made out to be an idiot. Such is the case here. Mr. Alexander is correct. I hope that the spirit maintained throughout "The Platinum Rainbow" would show that I did not mean to slight those engineers who have not gotten the break in this all-to-luck-filled business. I meant that a new artist recording on his demo can not afford to "save" by hiring an "inexpensive" engineer and often he does not have the time or the knowledge to effectively evaluate an engineer's abilities except by the experience the engineer possesses. In many passages we point out the extreme value of an engineer and what determines his or her ability. Ob-

viously, price is not the prime factor, but in a pinch don't skimp by going with someone with less experience. Hire an engineer who can effectively do the job no matter what the price. I hope the following excerpt can put this in a better context. Thank you.

*Sincerely,
James Riordan*

Reprinted from "The Platinum Rainbow":

"I can't overemphasize the importance of the engineer. The greatest equipment in the world will sound like a cheap demo room in the hands of an inept engineer. You can't make a professional record without a professional engineer. When you are talking with a prospective engineer, find out who he's worked with and what kind of music he's into. Is he into your music? If you know anything about sound, ask him how he mics the drums, does he like to mic the bass or run it direct, what are his little tricks? Ask yourself if you feel good about the guy. Can you handle working with the guy for three hundred hours or so?

Like everything else, when it comes to the engineer, you are going to get what you pay for. A ten dollar an hour engineer gives you a ten dollar an hour tape. A good engineer costs anywhere from \$25 to \$50 an hour. Some of the great ones can command even a higher price, but you should be able to find the person you need for \$25 an hour.

Build a rapport with your engineer. Talk to him. Once you've established a rapport, you'll feel more comfortable with him, and that affects the whole studio situation. A lot of the uptightness in the studio is caused by all the uptightness one feels with the individuals in the room, and most of that can be straightened out before the session. If the artist and the engineer don't have a rapport, the artist usually suffers. When you and the engineer do not understand each other, he will probably wind up doing everything his own way. His way may be good, but it may not be right for you. If he understands you, he can use his talent to get what you want and that's what you're paying him for. Equally important is the fact that when you feel confident with your engineer, you'll listen to him. That's very important because he's the man who can get you through the pitfalls of the studio, especially if you're a beginner."

THE NEW TOA RX SERIES SUB-COMPACTS.

THE TRAVELLING CONSOLES THAT WON'T DRIVE YOU TO THE POORHOUSE.

For any demanding high quality professional sound reinforcement requirement, there's now a choice between the real expensive and the embarrassingly inadequate: The TOA RX Series.

Starting as low as \$1,130.00 for our RX-5A console and all the way up to our 32 by 8 RX-7 Model, you now have the performance, features and flexibility to create a professional sound system that can handle the simple showcase gig or the big concert job. Of course, if you need to record, the necessary features are all there.

Our top-of-the-line Series, the RX-7 is available from 16 in/4 out (pictured below) to 32 in by 8 out.

It's modular, and has features too extensive to cover here. When an RX-7 is more than you need, we make three smaller RX Series consoles that will more than get the job done: The RX-5A (8 by 2); The RX-6A (12 by 2); and the RX-5/16A (16 by 2).

Whatever model you choose in the series, you get a -128 dBm E.I.N. hum and noise figure (20 Hz-20 kHz). Quiet. THD at +10 dBm is typically less than .08%. Clean. And crosstalk is -60 dB (1 kHz, input to output), -70 dB on the RX-7 Series. Professional. All the way, including heavy-duty XLR type connectors on many of the I/O's.

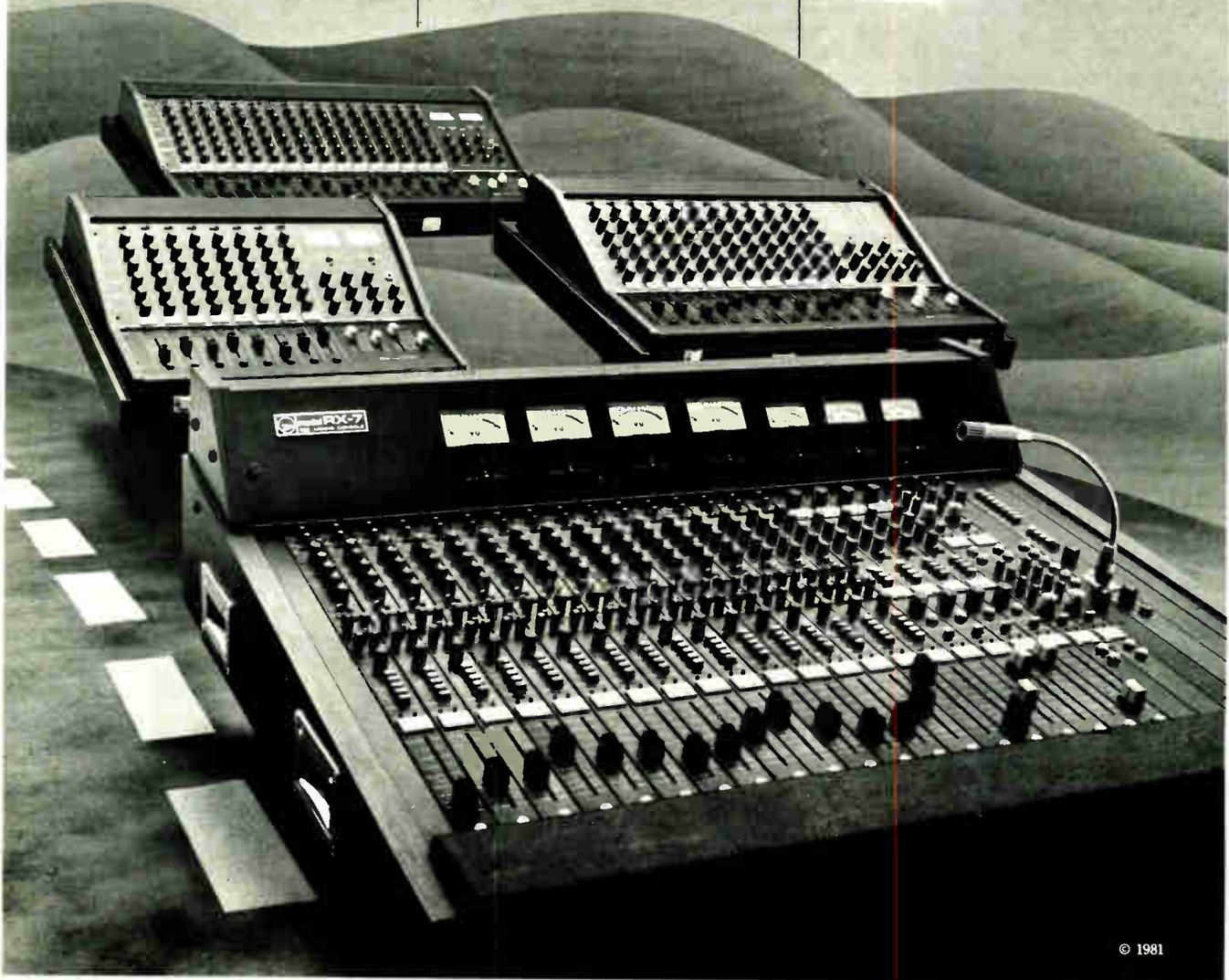
Give us a call at (415) 588-2538.

We'll rush out all the spec's and the name of your nearest qualified TOA dealer. We're confident you'll want to sit behind the superb handling of an RX. The consoles that have performance and features to spare —and the serious subcompacts that won't drive you to the poorhouse while you're on your way to the top.

*Crafted in Japan.
Proven in the States.*



TOA Electronics, Inc.
1023 Grandview Drive
South San Francisco, CA 94080
(415) 588-2538 Telex: 331-332



© 1981

CURRENT

Sony to Take Betamax Case to Supreme Court

Sony Corporation of America has announced that it will appeal the October 1981 ruling on the Betamax copyright case to the U.S. Supreme Court in order to protect the rights of home video recorder users to tape television programs. The Ninth U.S. Circuit Court of Appeals has denied a Sony request to reconsider the ruling which stated that off-the-air recording of television shows was illegal, making millions of home VTR owners into criminals.

The original lawsuit by Universal Studios and Walt Disney Productions against Sony was a 1976 effort to prevent the private use of video-cassette recorders. After a five week trial in Los Angeles, a federal court ruled in favor of Sony, stating "non-commercial home use recording of material broadcast over the public airwave is fair use" and thus was exempt from copyright infringement. Universal and Disney appealed the decision which eventually led to the October 19, 1981 reversal.

Unless Sony is successful in their current bid for a Supreme Court appeal, consumers and

manufacturers of home video recorders could be sued for damages resulting from the Circuit Court ruling.

MPR First Radio Station to Have Digital Recording Equipment

Minnesota Public Radio has become the first broadcasting operation in the United States to be fully equipped with a multi-track digital recording and editing system. Tom Voegeli, MPR Productions Vice-President, said: "the acquisition of 3M's Digital Mastering System and Digital Editor will enable MPR to produce and broadcast programming with the finest quality sound technologically feasible today."

The digital system has been installed in MPR's state-of-the-art 24 track production studio, where "Star Wars for Radio" was post-produced; where the new Columbia recording of Lucasfilm's "Raiders of the Lost Ark: The Story on Record" was mixed; and where "Saint Paul Sunday Morning," a weekly chamber music series broadcast by more than 100 public radio stations nationwide is recorded and produced. The digital equipment will also be used in the production of

special remote broadcasts such as performances by the Minnesota Orchestra and Saint Paul Chamber Orchestra.

MPR's use of this equipment is a major step in radio history and will set new standards for the technical quality of national satellite-broadcast programs.

Allen and Heath Brenell Forms New U.S.A. Distribution Firm

Allen and Heath Brenell Limited, of London, the British manufacturer of quality professional mixing consoles and equipment, has announced the formation of Allen and Heath Brenell U.S.A., Ltd., to handle all operations in the United States.

Appointed to the position of National Sales Manager is Mr. Charles Augustowski, a long time representative of Allen & Heath products in the U.S. His first activities will include: A re-organization of American AHB operations, and tighter quality control of all products shipped from their Stamford, Connecticut headquarters. New regional representatives have been appointed nationwide to increase dealer support.

notes...

According to Rick Plushner of Sony's Digital Audio Division, in Compton, CA, the SPARS L.A. Roadshow in mid-March will be dedicated to digital audio recording. All major manufacturers are expected to demo their products and participate in a panel discussion... SPARS has also launched a Booster Membership which, for \$10, gets you a SPARS membership roster, admission to chapter functions and entry into a contest with prizes of 300, 200 and 100 hours of studio time at member studios... Dave Teig has left his general manager position at Atlantic Studios in New York City and is currently negotiating with several companies for a high level position... The Nashville Music Association has moved to larger quarters at 14 Music Circle East, Nashville, TN 37203. Their new telephone number is (615) 242-9NMA... Donald F. Bogue, Audio Tape Products Business Manager for the Ampex Corporation has nam-

ed Philip M. Ritti as their Industrial Audio Product Manager for their cassette duplicator and industrial cassette product lines... The Audiotechniques Equipment Exchange, of New York City, has opened a second showroom, "the dungeon", located in the basement of The Brill Building at 1619 Broadway... Valley People, Inc. has entered the multi-media facility design market, having completed designs for a TV studio for the Jimmy Swaggart Evangelistic Association... JBL's International Division is doing well, having promoted Randy Patton to I.D. Sales Manager, and Terry Sorensen has moved up to the Product Applications Engineer spot... A grant from the 3M Corporation to the Memphis Chapter of NARAS (National Academy of Recording Arts and Sciences) helped pave the way for a recent microphone design seminar, part of the chapter's continuing educational activities. 3M Corp. has added Atlanta-

based Roger Harvey as a Digital Audio Sales Representative to serve the Southeastern states... Lion's Gate Films, of Los Angeles, has unveiled the first working prototype of a VARMS (Video/Audio Recording and Mixing Stage) to provide broadcast quality video with digital audio capability for video disk production. The facility was designed by noted studio architect John Storyk, of Metropolis Studios (New York City) who also revealed plans to open two VARMS in New York later this year... The JRF Company, who sells and services magnetic recording heads and supplies, has moved to larger quarters at 17 Byram Bay Rd., Hopatcong, N.J. 07843, phone: (201) 398-7426... Floyd Dillman has formed Floyd Media Services, a Chicago firm to provide complete services for audiovisual production and exhibition for conventions, tradeshows and entertainment gatherings.

The new advanced-design CS70M programmable polyphonic synthesizer.

FREEDOM OF EXPRESSION.

Yamaha's CS70M gives you the power to express yourself. This dual channel programmable polyphonic synthesizer has full six-voice capability and a built-in 4-bank polyphonic sequencer. It's like having an extra pair of hands.

And the CS70M also has a split personality. You can divide the keyboard to function like two independent keyboards, either at

a set point or anywhere you choose, and play two different voices from each side.

You can program, for instant recall, up to 30 separate voices, each comprised of 39 voice parameters. Add to this the unique magnetic data card system, and you have virtually unlimited storage capacity.

And virtually unlimited expressive capability with the

CS70M's built-in tremolo, ensemble, real-time LFO and exclusive keyboard after-touch sensitivity.

The CS70M has all this and much more. Try one at your Yamaha dealer. It'll give you all the freedom you need to express yourself. For more information, write: Yamaha, Box 6600, Buena Park, CA 90622. In Canada, 135 Milner Ave, Scarborough, Ont. M1S 3R1.



Combo Products

THE WAY IT WILL BE.

 **YAMAHA**

SESSIONS

NORTHEAST

At **Eastern Artists Recording Studio** in East Orange, New Jersey, **Dean Friedman** has finished laying tracks for his newest LP release. **Neal Steingart** is the engineer on the project.

At **North Lake Sound**, in North White Plains, New York, recent sessions include: **Headfirst Records' Lesette Wilson**, recording and mixing her first LP for the label, with **Chris Cassone** engineering. The **Average White Band's Alan Gorrie** working with **Ali Thompson** on a new project for **A&M**.

Northern Lites and Sound Studios in Georgia, Vermont is presently working on the sound track to the musical play "**White Ship**" with director **Jerry Mendicino**. **Tracy Lord** is also working on his second album with **Paul Appleget** and the new wave band **The Decentz** are planning to do demo work in December.

The latest activity at **Unique Recording** in New York City includes **John Lee/Darryl Thompson/Billy Scott** recording several new tunes. **John Lee** producing, **Oscar Gerardo** and **Bobby Nathan** engineers.

At the **Record Plant** in New York City, **Greg Thornwood** and **Andy Shernoff** doing additional remixing of an E.P. by **Syntax** for **Valhalla Records**, with **Thom Panunzio** engineering.

Highlighting the sessions at Manhattan's **Unique Recording Studio** are bluesman **Johnny Copeland**, winner of the 1981 Handy Award, recording his second album with **Rounder Records**. **Michael Finlayson** is at the board.

At **Servisound**, New York City, creative head **Mike Shapiro** is completing the score for a 3-hour ABC-TV documentary on **Franklin D. Roosevelt's presidency...** and **Diane Ehrlichman** is doing the music editing for "**Hollywood's Children**", an independent production scheduled for February showing on public television.

Rock band **R Best** recording tracks for upcoming album at **Rick's and Automated Sound Studios** in New York City, with final mixing at **Automated Sound Studios**. Produced and engineered by **Jay Rifkin**.

Recent activities at **Starr Recording**, Philadelphia, PA include local act **Nu-Este** mixing down tracks recorded in December of last year. **Chas Gerber**, formerly with **Renaissance** and **Bruce Springsteen**, is producing and engineering.

NORTH CENTRAL

At **Ajax Recording Team**, Fort Wayne, Indiana, local folk-rock artist **Dick Myers** has just completed a 45 project. **Myers** plans on using the finished disc to shop for a label deal. Also at **Ajax...** pre-production sessions have begun for an upcoming album by Cleveland songwriter **F. Ronald O'Keefe**.

Recent projects at **Suma Recording** in Plainville, Ohio include: the 3rd album by **Deadly Earnest and the Honky Tonk Heroes**; individually customized promos for 170 (!) radio stations of **Stevie Carlisle's** "WKR In Cincinnati" theme song on **MCA Records**.

At **Sound Patterns DXM** in Farmington Hills, MI, gospel pioneers, **Bill and Essie Moss**, have completed recording their next single for their label, **Bilessie Records**. **Martin Scot Kosins** has begun mixing his next album which features the **Ink Spots**. Both sessions were engineered by **Dan Dallas**.

At **RMJ Studios**, Detroit, MI, **Jimmy Ruffin** is producing a followup album to his last year's hit "**Hold On To Your Love**." **Steve Lucas** is finishing up tracks for a forthcoming album for **Airison Records**.

At **Tantus Studio**, Detroit, MI, recent activity includes the recording of the **National Baptist Convention** at **Joe Louis Arena** for **West Bound Records**, featuring a 1500 voice choir. And **Ruth Busbee** on **Sound of Gospel Records** has just finished work on her LP.

Currently laying tracks for a new album release at **Super-Lyc's** in Warren, MI, is **Alux**, produced and engineered by **Beau Williams** and **John Jaszcz** with **Ken Scribner**.

Recording at **CloudBorn Productions, Inc.** in Grosse Pointe, MI, the European artist **Peter Mars** producing himself. **Mark Wisney** engineering. **The Billy Wimble Band** cutting a single. Managed by **Al Nalle**. **Mike deMartino** engineering.

Detroit group **Retro** recording and producing themselves at **Superdisc Studios** in East Detroit, MI. The project is being engineered by **David Baker** and **Terry Fedak**. Executive producers are **Tri Star Production's Al Ferszt** and **Scott Forman**.

SOUTHWEST

Rainbow Sound in Dallas, Texas has recently completed album projects for **Steve Radke** and

Daystar, **Jerre Burden**, and **Doug Hullum**. Engineering was done by **David M. Boothe**. The **Amos Staggs Band** cut a 45, "**Sad Affair**", with plans to complete an album built around the 45's success. Engineering was handled by **Keith Rust**.

Recent activity with the **Omega Audio** 24 track remote recording truck out of Dallas, Texas: The 27 foot mobile unit was recently hired by **Ron and Gene Weed** of **Weedy One Productions**, Los Angeles, to supply 24 track audio services for a video shoot of a network music special at **Billy Bob's Texas** in Ft. Worth, Texas. The show was recorded 24 track with time code for later remix and featured **Alabama**, **Merle Haggard**, **Donna Fargo**, **David Frizzell** and **Shelly West**, and **George Strait**. Engineering was by **Jim Fox**, **Paul Christensen**, **Russell Hearn**, and **Ken Paul**.

From Austin, Texas, **Reelsound's** remote bus has just completed dates on a live album for **DeGarmo** and **Key Band**. The project was recorded in **Tulsa** and **Oklahoma City** and produced by **Dan Brock**. Engineering was **Malcolm H. Harper, Jr.**, assisted by **Mason Harlow** and **Paul Stutz**.

NORTHWEST

The **Hyde Street Studios** in San Francisco, CA were recently host to sessions in studio C by **The Blue Ridden** for **Epiphany Records** with **Warren Smith** producing and **Richard Van Dorn** handling the engineering chores. Also in C was **Erik Jacobsen** producing **SilverTones** for **Sweet Reliable Productions**, and in studio D, **The Tazmanian Devils** for **Warners** with **Gary Mankin** on the board.

Recent activity at **Different Fur Recording** in San Francisco includes: The Portland-based group, **Pleasure** recently finished recording basic tracks and overdubs for their upcoming LP on **RCA Records**. **Robert Wright** is co-producing the album with **Nathaniel Phillips** of **Pleasure**; with **Michael Brauer** engineering and **Howard Johnston** and **Dou Mack** assisting.

Action at **The Automatt** in San Francisco, CA includes **Gamma** with **Ronnie Montrose** mixing **Elektra LP** with **Ronnie Montrose** producing, **Jim Gaines** engineering. **Herbie Hancock** mixing **Columbia LP** with **Ken Kessie** engineering and **Dave Frazer** assisting.

At **Las Vegas Recording Studio** (home of the **LEDE** control room) in Las Vegas, Nevada, **Inglebert Humperdink TV Special**, produced by **Danny O'Donovan** for **Dano Productions**, **Rick Pond** engineering. **Count Basie**, **Louie**

BROADCAST PRECISION

Introducing the Ampex ATR-800. More features than ever before in a broadcast audio recorder.

In a busy broadcast environment, every minute counts. That's why Ampex designed the ATR-800 with saving time in mind. With more standard features than any other recorder in its class, the ATR-800 is the perfect choice for broadcast professionals. And recording studio engineers? Take note.

The ATR-800 was designed for tape editing. The wide open head assembly gives you fast, accurate tape access. Recessed head gate and transport controls prevent tape snag. And a continuously variable shuttle, under control of the microprocessor, regulates tape speed and direction.

But the features don't stop there. You'll find a standard cue amplifier that allows monitoring of any or all channels, a quick change head assembly, a digital tape timer with single-point search-to-cue, three tape speeds

with built-in vari-speed, fader start for remote control from a console and much, much more. All standard. And with a switchable NAB/IEC setup, the ATR-800 is a true international recorder in every sense of the word.

Look around, no other audio recorder offers you more standard features than the ATR-800. Whether you need rack mount, console or pedestal versions, call your Ampex dealer or write Ampex Corporation, Audio-Video Systems Division, 401 Broadway, Redwood City, CA 94063 (415) 367-2011. Sales, spares and service worldwide.

AMPEX TOOLS FOR TOMORROW

Ampex Corporation • One of The Signal Companies

Serviceability
Plug-in assemblies are easily accessible from the front of the recorder, even when rack mounted.

Quick Change Head Assembly
Converts from one to two to four channels, or back quickly with no mechanical re-alignment.

Three Speeds with Variable Speed Operation
Machines are shipped with three speeds, 7½, 15 and 30 in/sec. Field convertible to 3¾, 7½ and 15 in/sec.

Digital Tape Timer with Single-Point Search-To-Cue
For accurate timing in hours, minutes and seconds.

Switchable NAB/IEC Setup
Converts between NAB and IEC setup, including bias as well as equalization.

Microprocessor Control
Microprocessor system ensures safe, gentle and foolproof tape handling.

Designed For Editing
Head assembly is wide open for unequalled accessibility. Dump edit and hands-on-reel editing modes included.



SM85

a studio quality
condenser
microphone
that's not
"studio bound"

This new high technology Shure microphone will change the way people think of condenser microphones. The SM85 is designed especially for on-stage, hand-held use. Its sound is unique—far more tailored to the special needs of the vocalist: sizzling highs and a shaped mid-range for superb vocal reproduction, and a gentle bass rolloff that minimizes handling noise and "boominess" associated with close-up use. Ultra-low distortion electronics make the SM85 highly immune to stray hum fields. An integral, dual-density foam windscreen provides built-in pop protection.

What's more, the SM85 Condenser Microphone must pass the same ruggedness and dependability tests required of Shure dynamic microphones. As a result, the SM85 sets a new standard of reliability for hand-held condenser microphones.

The SM85 is *extremely* lightweight, beautifully balanced—it feels good, looks good on-stage, on-camera, on-tour. Ask your dealer for a demonstration of the new SM85, or write us (ask for AL664) for full details.

SM85

Cardioid Condenser
Hand-Held
Professional Microphone

The Sound of the Professionals.



Shure Brothers Inc. 222 Hartrey Ave. Evanston, IL 60204
In Canada, A. C. Simmonds & Sons Limited
Manufacturers of high fidelity components,
microphones, sound systems and related circuitry.

Bellson, Joe Pass, Neal Pederson, Willy Cook and Clean Head Vincent working on a new album for Pablo Records, **Norman Granz** producing.

SOUTHERN CALIFORNIA

At **Cirkis Audio Group**, Hollywood, CA, **Red Zone** is currently tracking for debut album on Banner Records, **Ottavio Sasso** in charge of production, **William K. Smith**, engineer.

At **Studio Sound Recorders** in North Hollywood, CA, **Smokey Robinson** has started cutting tracks for his new album on Motown Records. **George Tobin** is producing. **Howard Wolen** is behind the board. French artist **Bernard Swell** is cutting additional tracks for his album on WEA International. **Ryan Ulyate** is engineering.

At **K Disc Mastering** in Hollywood, **John Golden** has been keeping busy mastering such projects as **Frizzell & West's** new LP and single with producers **Snuff Garrett** and **Steve Dorff** and engineer **Greg Venable** for Warner/Viva Records, the soundtrack album to **Sharky's Machine** and single sung by **Sarah Vaughan** with producers **Snuff Garrett** and **Dave Pell** for Warner Brothers Records.

At **Monterey Sound Studios** in Glendale, CA, **A Taste Of Honey** are cutting tracks for an upcoming album, **Al McKay** producing, **F. Byron Clark** engineering, **David Goldstein** assisting.

At **Sunset Sound Studios** in Hollywood, CA, **Nicolette Larson** in St. 1 tracking, O/D and mixing her new album for Warner Bros., **Andrew Gold** producing. **Jim Isaacson** engineering with

Stephen McManus assisting. Arista recording artist **Melissa Manchester** in St. 2 doing basic tracks for a new LP. **Arif Mardin** producing. **Jeremy Smith** at the console, **Terry Christian** assisting.

Latest activity at **Heritage Studios** in Hollywood, CA, includes Columbia artist **Billy Griffin** working on his album with producer **John Barnes**. **Barney Perkins** is engineering, **Craig Burbidge** assisting.



Guy Randle, owner of **Rosewood Recording Company** in Provo, Utah, reports the installation of a new Tangent 24 channel console and a nine foot Baldwin grand piano. The outboard rack has also been updated with the addition of an Orban De-Esser and a Symetrix compressor/limiter.

Likewise Productions, Oakland, CA, is now operating as a full 16 track facility, which features a Sound Workshop board, Tascam 85-16, Tannoy monitors, Lexicon DDL, and a large assortment of mics. The studio offers **Jeffry Holt**, **Matt Brady**, and **Greg Spinos** as engineers, and has a fine selection of studio instruments.

Roar Productions of Columbia, MD, is pleased to announce the conversion of their in-house studio to 8-track operation. The studio now features a brand new Otari Mark III 8-track recorder (with full remote control), and a new Otari 5050B mixdown machine.

Pyramid Audio Inc., South Holland, IL is pleased to announce their move to a new, larger, full service facility. Included will be a 24 track studio, equipped with an Otari MTR 90, A Neotek 32 x 24 Series III console and a full compliment of microphones and outboard gear. Also, complete rental and leasing of sound systems and studio equipment; rehearsal studios; a large show-case/presentation room with video facilities; sales and service of pro audio gear; and, complete studio and sound system design and installation. Doors will open in mid March. Studio and rehearsal time is being booked now.

Q.C.A. Recording Studios in Cincinnati, Ohio has recently upgraded its control room with a Harrison 28 x 24 MR-3 console. The console features Allison automation, transformerless inputs and 28 channels of true parametric equalization.

Round Sound Studios Inc. of Toronto, Canada has recently equipped it's 16 track facility with the latest in synthesizer equipment from Roland further fueling their expansion into the audio/visual, film and advertising markets. The system consists of the Roland Jupiter-8 eight-voice polyphonic synthesizer, System 100-M 42-module polyphonic synthesizer with multi-voice programmable MC-4 Microcomposer, and the TR808 programmable rhythm unit.

Rampart Street Studios of Houston, Texas has recently completed a major renovation project. The studio design is by **Woody Smith** of ASI Pro Audio in San Antonio. The project includes a major equipment update and the addition of a Soundcraft 1624 16 x 16-24 console purchase from ASI.

Video Focus:

Our special issue of Mix devoted to the evolving video/audio recording industry. Besides an update of the latest developments in video music production and technology, we will be presenting articles on:

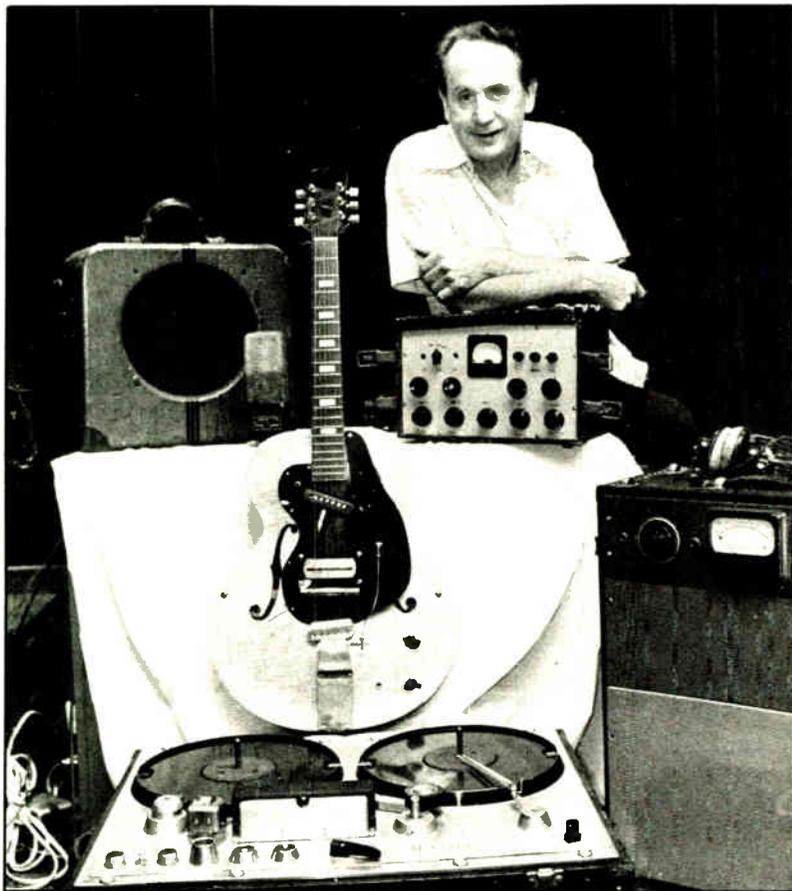
- Live concerts via satellite
- Legal obstacles for video music
- Video editing applications for music
- Video music producer Michael Nesmith
- Video artist updates
- Unitel's audio/video supertruck

PLUS listings of audio recording studios offering video post production services.

If your company or studio is involved in video sweetening or post production, or if you manufacturer or sell audio/video products, the April issue of Mix is the perfect opportunity to advertise what you have to offer. Call (415) 843-7901 for more information.

AD CLOSING: FEBRUARY 22, 1982

PROGRESSIONS



Left: Les with first sound on sound recorder he made from Ampex 300 by adding fourth head. Also shown is the custom remote mixer for use with the recorder.

LES PAUL

by Larry Blakely

As I reflect over the many years I have spent in the music and recording fields, Les Paul is one individual that never ceases to amaze me. The more I find out about him, the more I realize what he has contributed to our industry. He was inventing things and creating new concepts many, many years ago that have become standard practice in today's music recording. He is a man who was and is ahead of his time, a true pioneer who was not satisfied with the existing technology and methods of making or recording music. He sought a better way.

I had the opportunity to spend a few hours with this fascinating individual and the things he told me blew my mind. Les Paul is no youngster these days, but he is enthusiastic, vibrant, alive, and while excited about his past accomplishments, talks of new ideas and techniques. I could continue

the praise for the rest of the column, but let me digress with some of the information that he shared with me.

Les claims that his first experience of overdubbing musical parts was on his mother's player piano. This he did by punching extra holes in the player piano rolls. This he says was the very early days of digital recording.

In the 1920's young Les Paul, playing a Sears and Roebuck guitar, found that his audience could not hear him well enough. So he took the electric pickup (cartridge and needles) from a phonograph and jammed it into the top of his guitar and fed the output signal through a wire to his mother's table radio. He then found a carbon microphone and connected that to his father's battery-operated radio. With the use of this new amplified guitar and sound reinforcement system, he found that his tips improved as the audience could better hear him perform.

Later he became interested in re-

recording his music. Since this was in the days before tape recorders, all recordings were made direct to a disk. So about 1938 he built his own disk recording lathe, using such parts as electric washing machine motors, a lead screw and other crude devices. While he was living in Chicago he installed the recording lathe behind the pull-down bed in his apartment. This was perhaps one of the world's first home recording studios.

In 1944, while in California, Les decided to build an improved recording lathe. For \$10.00 an evening he rented a place to work, at night only, in the rear of a hobby shop in Hollywood. He built this new recording lathe using a Cadillac flywheel for the turntable and the motor came from a juke box. He found a man to make him a special cutter head that would record much higher frequencies than the commercially available phonograph records of the time. He claims that his cutter head would go out to 10 kHz while conventional cutter heads would only extend to 5 kHz or 7 kHz. As he progressed, he sought a 'fuller' sound with more 'presence.'

At this time all recordings were monaural, recorded direct to the disk, and the sound was usually picked up by one microphone that was placed some distance from the musicians. Most of the major recording studios in existence were owned by the major record companies. They had their own ways of recording and were not interested in hearing about Les Paul's ideas of getting a different sound. So he decided to build his own recording studio in his garage with an investment of about \$650.00. In this private studio he started using close microphone placement techniques, separate microphones for each instrument and combining the microphone signals through a home made mixer. After a while people became curious about how this crazy man was getting such an incredible sound in his garage. Even Bing Crosby came by and asked if he could record in this garage studio. Les says, "I wanted better sounding records than the accepted recording methods and equipment of the time would allow, so I built my own

studio and became a rebel... I did it because I had to do it!"

For reverberation Les used a long reverberant hall at night when no one was there. He also created "slap back" echo effects. By using a playback head that followed the cutter and playback heads, the rate of the slap back could be controlled. He also was doing phasing and flanging effects with the use of two turntables. Remember, this was about 1945.

Shortly after World War II Colonel Ranger and Jack Mullen brought tape recorders into the United States from Germany. Les found this an exciting new recording tool with even greater potential. He acquired one and soon had installed extra heads for making "sound on sound" recordings.

He devised his own type of compressor, by watching the needle of a very large VU meter and learning to play in a way that made the needle almost stand still. He adjusted the pickups on his guitars so the different notes would be nearly the same level and he taught his singing partner, Mary Ford, to automatically turn her head on loud notes so as to keep the VU meter standing still.

In 1954 Ampex built, at Les Paul's request, an eight-track multi-channel tape recorder with Sel-Sync™*, allowing multiple tracks to be recorded in synchronization. At the same time Les began building a multi-track recording console. By 1956, the multi-track tape recorder and recording console were in full operation. Even though the recorder was an excellent tool, Les says that the sound-on-sound recording process was much quicker for him. His recording of "How High the Moon" was

First eight track recorder made for Les by Ampex, with in-line heads and sel-sync per his design.

"The Log", the first solid body electric guitar, built by and for Les Paul.

done with sound-on-sound and was comprised of 24 separate recordings stacked on top of each other. And his lightning fast guitar parts were recorded by running the machine at half speed and playing one octave lower.

The other very important side of Les Paul is the guitar builder. In 1934 he asked August Larson in Chicago to build a semi-hollow body guitar with 1/2" thick solid maple top, so that the guitar would not resonate because of the strings on the bridge. The resulting guitar was excellent for jazz, possessing a mellow sound or what Les calls a "dark sound."

He found that using two pickups on a guitar provided two different types of sounds that could be easily selected by a switch, or a third sound by using both pickups. In 1941 he carved down a 4" x 4" piece of wood, which had two "wings" and two pickups, that became the first solid body guitar. This he referred to as "The Log." Les Paul took his guitar ideas to Gibson and, he said, they kindly showed him the door. Meanwhile, he continued to develop his guitar ideas, conceiving a steel bridge and trapeze tail piece, along with different types of electric pickups. Then, in 1949, the president of Chicago Musical



PHOTO BILL ANACKER

Instruments (which owned Gibson) said, "Go find that character with the broomstick with pickups on it." An agreement was signed to make a Les Paul guitar—this was what he describes as a hollow body guitar with a log down the center to allow the guitar to sustain. Les says, "To date there have been no changes made in it. It took my whole life to build that guitar. When I built it I didn't make it for anybody else; I built it for myself." There was also a Les Paul solid body guitar made by Gibson.

Les Paul has covered a lot of ground in his life, not only by inventing recording methods and equipment and musical instruments, but also as an accomplished musician, performer, recording artist and producer.

"Today's musicians know a lot more about the tools of their craft," say Les. "They are more knowledgeable about their instrument, as well as sound and recording procedures. They are more aware! Today's musicians are curious, they are reading, they are in studios and around sound gear, and what they don't know they are finding out. They can go into a music store and find most anything that they like. Today's musicians can see performers on TV and in the movies or they can buy records and study the techniques of other musicians. With all of these aids they can learn much faster. Musicians today also have a wide variety of instruments as well as effects devices to expand their creativity."

"I ask today's musician to keep in mind that it's what you do with what you have. You should be a creator, and should know how to be a performer, producer, engineer, and a writer. Above all if you have a crazy idea, throw it out on the table. They will either laugh or use it, but don't be afraid to express your ideas."

* Sel-Sync is a registered trademark of Ampex Corporation.



PHOTO H. GARY BEEBOWER

STUDIOSCOPE

Diversification Alternatives for the Small Studio

by Dennis Buss and Chris Haseleu

Studios of every size are being hurt by the current economic slow-down. The large, multi-room 24-track studios on music row in Nashville, or in downtown LA, react to a softening in studio time sales by laying off part-time employees, cutting-back on 24-hour operation, tightening credit policies—in addition to trying to drum-up new clients. However, the small 8 or 16-track studio that is not located in a major recording market is in more of a marginal situation: a decrease in studio time sales might drop the smaller studio below the financial break-even point. So, what can be done by the owners of these small studios to prepare for the inevitable economic pressures? "Diversification" seems to be a recurring answer among many successful studio owners. The philosophy here is the more services the studio offers, the greater the possibility of the operation to absorb economic fluctuations.

Recently, SPARS (Society of Professional Audio Recording Studios) sponsored a series of "Road Shows"—seminars in various parts of the country. Some of the common comments were that studios need to investigate offering additional services—such as remote recording, possible sound programming for CATV, sound for film, commercial work, etc.—to combat current economic trends. Trade publications have been expounding the benefits of video for

some time. Some studios are becoming pro audio equipment retailers. Others are generating increased income from offering recording classes. There are still those fortunate studios making money at multitrack music recording only, but it's impossible to identify the perfect combination of services each studio should offer. Rather, the purpose of this article is to discuss various diversification alternatives open to the studio owner. It's then the responsibility of the owner to select his/her studio's service mix. A primary resource that we used extensively in the writing of this article is the *1981 Pro Sound News Recording Studio Operations Survey* (August 17, 1981).

STUDIO PROFILE. Statistics show that over 70% of all studios nationwide have 16-track capabilities or less. A majority of these operations are one-room studios, with five (or less) employees, and have been in operation less than eight years.

MUSIC RECORDING. Most studio owners have had the dream of cutting a "top 10" hit in their studio. However, for each of the last two years, only 58% of the average studio's business has come from music recording.

The recording budgets of local, unknown bands wishing to record demos, as well as National Recording acts, are affected first by an economic slow-down. At the same time, collecting on credit accounts during a tight money period is often next to impossible, also,

to be competitive, studio's wishing to be profitable in this area usually must upgrade to 24-track capabilities (or at least 16-track). Music recording causes other financial demands on the studio: The need for more outboard equipment (although renting this equipment is becoming popular), larger studios, kitchen and lounge areas, etc.

COMMERCIAL WORK. Last year 18% of the average studio's business was generated from advertising (jingle production) and/or broadcast program recording. A good relationship with the creative services department at a local ad agency, or radio station, can be a life-saver when things get dim for the studio's profit picture. An interesting phenomenon occurs when there is an overall business-wide economic recession: ad agencies will usually spend **more** money for the studio's services during these times. This is because the agency's clients must spend more on advertising to compete for the decreasing amount of consumer dollars available. Other advantages are obvious: large studios are not needed, sophisticated outboard equipment isn't quite so critical, and a good project can be done at an 8 or 16-track studio. The disadvantages are equally obvious: credit collections are slow, special services might be required (editing, production), and the competition for this market is fierce.

VIDEO/FILM POST PRODUCTION. Supplying sound for these types of projects is not for everyone. This is reflected in that only 5% of the average studio's business came from this service last year. Special expertise and equipment is a necessity. In 1981, the studio wishing to compete in this field spent \$19,800 to buy new, or additional, post production A/V or video equipment, on a nation-wide average. Although it appears this is a progressive, dynamic market, at this time it is not large enough for most studios to concentrate on.

TAPE DUPLICATION. Most large and small operations offer this service to their clients on some level: Last year it represented 7% of the average studio's business. However, to be a profitable activity, the studio must specialize in tape duplication and job this service out to other studios, or generate enough internal business (jingles, demo tapes, presentations, etc.) to keep the duplica-

tion department busy. After the initial purchase of the machines, this service can be a good alternative for the small 4 or 8 track, one-studio operation.

REMOTE RECORDING. This could involve a studio with a complete, well-equipped remote truck with staff, or a small studio that might carry their only console and tape machine in a Datsun pick-up over to the local high school to record the annual Christmas show. If done right, both levels could be profitable. However, the special equipment and extra personnel needed, plus the wear-and-tear on the equipment (and staff!), makes this alternative less desirable. Only 3% of the average studio's business came from this service last year. But, this figure also shows that there might be an unreached market

available to the studio.

OTHERS. *Industrial A/V*, like tape duplication, is often available to the smaller studio. If the studio has a creative staff that can produce effective corporate slide presentations, the owner should investigate this potential source of income.

In the same light, if the studio's staff is knowledgeable and capable of teaching others, the studio might want to offer *Recording Classes* (usually during off-hours) to interested musicians and prospective audio engineers. Comprehensive technical books are available as teaching aids. Also, a recording studio can affiliate with the Recording Institute of America (RIA) which will supply teaching aids and advice for conducting these classes.

Some studios find the demand for state-of-the-art audio equipment for the home (or home studios) in their markets is ever increasing. These studios have found that *retailing* this *pro-audio gear* has proven profitable by obtaining a franchise for the equipment and either displaying it at the studio, or hiring an outside salesperson to sell to other studios and businesses.

What will 1982 be like for the small studio? One thing for sure will be the need to diversify—to be able to bring in profits from more than one studio service. Not all of the alternatives mentioned above will be appropriate in every situation. However, new combinations of studio services seem to be a requirement for profitability for the upcoming decade. ■

Introducing **The location mixer** It's Portable, Affordable, & Complete.

Maximum flexibility, minimum hassles. That's what you need on location. And that's what **The location mixer**, new from **Audioforce**, is all about.

A Flight Case Full of Features

On location, you've got to be prepared for anything. With **The location mixer** you are, with its 8x2 configuration, four mix busses, solo/PFL (selectable pre- or post-fade), stereo echo send/return, and transformer balanced inputs for total isolation. Every channel is mic/line selectable, with three band EQ plus sweepable midrange and low cut switch. Powered by C-cells, NICADS (with built-in charger) or the A.C. line. There's phantom mic. powering too, and much, much more.

Just Grab It And Go

The location mixer is built to last, in a self-contained, weatherproof, heavy-duty flight case, 16" x 24" x 4½".

Call Toll Free For No-Risk Trial

All these features, all this quality costs you just \$1890, because we sell direct. Try **The location mixer** for yourself, with no obligation. Call **Audioforce** Toll free 800 847-4123 (In New York State: 212-741-0941) for all the details. Once you get your hands on **The location mixer**, you won't go on location without it.



Audioforce INC

38 W. 26th St.
New York, N.Y. 10010

the sound choice



instruments By **SEQUENTIAL**
CIRCUITS INC

Shown above clockwise: Prophet-10 synthesizer,
Remote Prophet keyboard, Prophet-5 synthesizer,
Poly-Sequencer, Pro-One synthesizer.

For more information, see your dealer, or write Sequential Circuits, 3051 N. First Street, San Jose, CA 95134.

DIGITAL SYNTHESIZER SURVEY

by **David Gans**

INTRODUCTION

If the musicians who tried out the first synthesizers were intimidated by their vast arrays of knobs, switches, patch points and flashing lights, imagine facing the inverse situation—a panel containing only a LED readout or two, one large silver knob, a video screen, and a typewriter (not piano) keyboard!

Things haven't reached quite such an extreme, but the eighties have brought forth an impressive new generation of computer-controlled electronic musical instruments, taking advantage of tremendous advances in sound and microcomputer technology. Digital control has made it possible to eliminate completely the manual routing of signals and all the practical limitations of that method. Programming and sequencing of virtually unlimited numbers of patches, online and available for instant use in live performance situations; the ability to compose symphonies on the computer and print out entire scores and individual parts—these and much more have been made accessible to more people as their cost has come down.

Research by psychoacousticians, musicians and engineers has yielded a wealth of information about the nature of sound as it is perceived, and the results have led to the cataloging of over a hundred different parameters for the creation of whole sounds. The same technology that has made digital sound recording a reality has made possible the "sound camera" features of instruments such as the E-mu Emulator and the Fairlight CMI, both of which can sample sounds from various sources and record their timbres for replay or modification by the musician.

Composers have found that the way the computer handles such tasks as voice assignment can be used as composing tools. Patrick Gleeson observed the pattern of flashing lights on his modular synthesizer and discovered a new way of constructing rhythm patterns for his 1980 composition, "Songs for Petrochemical War".

Most of the new digital and digitally-controlled analog synthesizers have SMPTE or other synchronization interfaces which facilitate their use with automated consoles, video and film systems, thus opening new opportunities for the creation of entirely synthetic records and sound tracks.

Prices and configurations of these systems vary widely. In our survey we have attempted to give an overview of this interesting and promising

ing and programming functions are controllable from the keyboard unit, so the computer need never be accessed during performance. One control knob is used to make all changes, with LED cells to display the value of the register selected. Pushbuttons on the front panel are labeled with their musical—not digital—functions. The 16-track digital memory recorder is expandable from 2,000 to 15,000 notes.

The Synclavier II's "Partial Tim-



*New England
Digital's Synclavier II*

area of music technology, but for more information you should see your dealer or contact the manufacturers directly. At the end of this section is a list of manufacturers, many of whom have thorough and informative brochures which they will gladly send to interested parties.

NEW ENGLAND DIGITAL

The Synclavier is available with eight, 16, 24, or 32 voices, and (with expanders) up to 128 voices can be controlled from one keyboard. All play-

bre Method" consists of 24 separately adjustable harmonics, volume and harmonic envelope generators, adjustable vibrato control and portamento rate, and special effects. The eight-voice system had eight partial timbres, the 16-voice 16, etc. Four partial timbres (96 harmonics) are available online for simultaneous use. Options include velocity-sensitive keyboard with assignable effect.

The Digital Analysis/Synthesis Option enables sampling, analysis, modification and editing of sounds, which can then be performed on the

SPECIAL REPORT: DIGITAL SYNTHESIZER SURVEY

Synclavier. Up to 400 megabytes of disk storage can be put online for sample lengths of up to 54 minutes, with a maximum sampling rate of 50 KHz. The system can perform waveform analysis in frequency and time domains, and spectral analysis on any sampled sound. Suggested applications include speech analysis; music synthesis and timbre analysis; audio editing; processing and synthesis; acoustical and audio engineering research; noise vibration and random transient analysis.

The Terminal Support Option provides four additional functions: Graphics, a real-time display of timbres to facilitate analysis of sounds; Script, a musical language which facilitates generation of note lists (useful for film and video as well as composition); Max, a computer programming language; and Music Graphics, automatic transcription of notes in the Synclavier's memory onto paper by means of a line printer.

PRISM

Kinetic Sound Corporation's entry in the digital-synthesis market is the Prism, which offers six modes of synthesis: waveshaping, wave blending and frequency modulation, each controlled either by volume envelope or device. Dynamic timbre allows definition of sound changes throughout the duration of notes; output can be mono, stereo or quad; keyboard split is flexible.

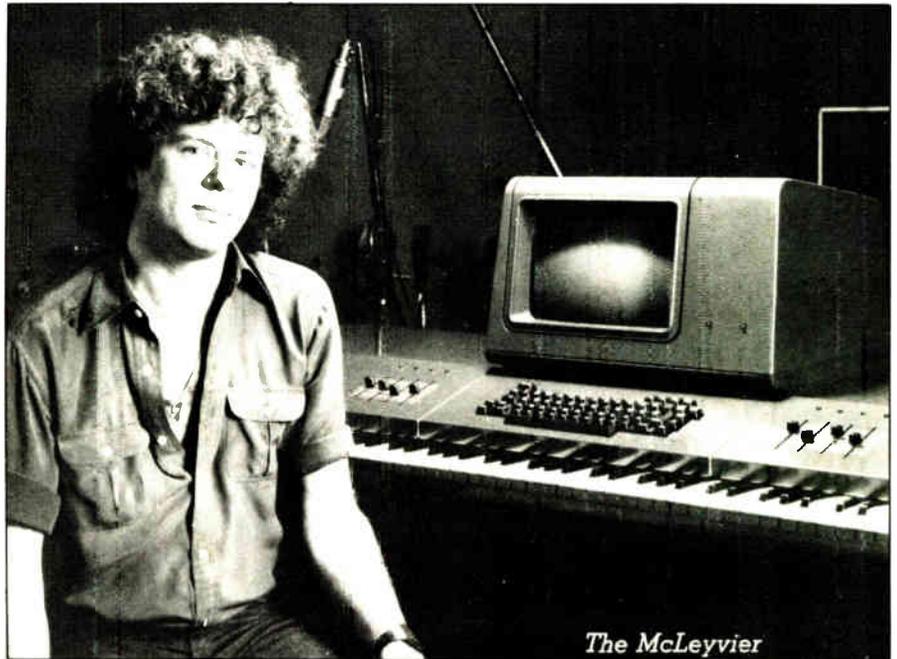
The Prism includes a double-manual keyboard and 24 voices, expandable to 40. Remote 61-note keyboard and 13-note pedalboard are available. All controls—pedals, footswitches, sliders, thumbwheels and joystick—are assignable to different parameters for real-time control.

Two forms of pitch adjustment

are featured: Microtone provides 1/10-note resolution, and Delta-hertz resolves to within 1/10 Hz. Four random-number generators operate similarly to random sample-and-hold circuits. Four digital LFOs provide sine, triangle, ramp and square waves. In Latch mode, sound continues until a new note is played; in Solo mode, a

switch may be used for instant sound cutoff, to kill all sound when needed. The duration factor varies envelope times in frequency-dependent ways to create realistic acoustic effects.

Onboard storage capacity in "up to a hundred waveforms and a hundred devices and as many as several hundred instruments and ensembles".



The McLevier

new key replaces the previous one without retriggering any envelopes. An Ensemble feature enables grouping of voices into programmed keyboard areas.

"Sonic building blocks" are additive/subtractive synthesis, Plot, and FM; envelopes include volume, timbre, pitch and channel; portamento can be either monophonic or polyphonic; a

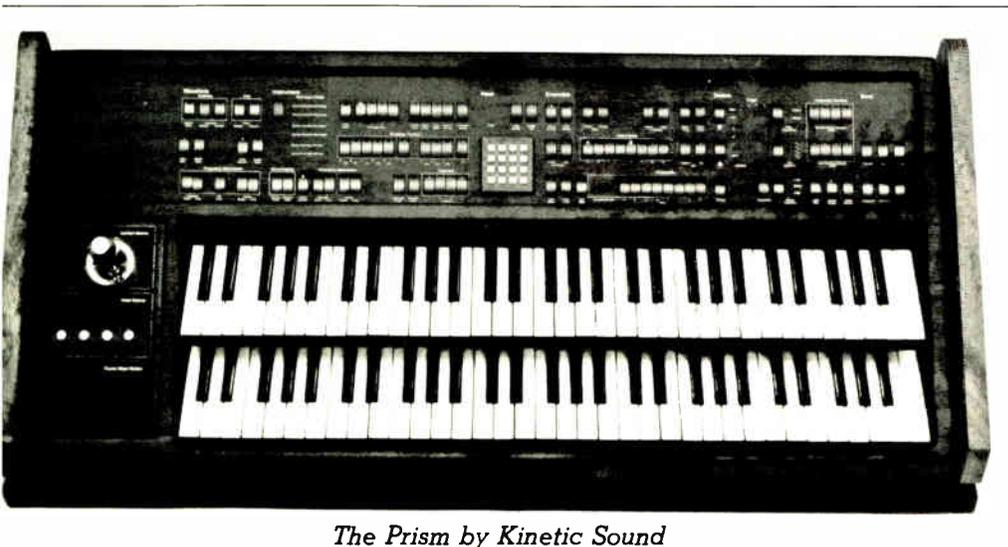
McLEYVIER

In addition to its capabilities as a composing and performing system, the most notable feature of the McLevier is its automatic music scoring pen plotter, which produces a printed score of any or all instrument parts.

The McLevier consists of a 61- or 88-key keyboard; magnetic disk drive with six hours (minimum) music storage capacity; multiple analog synthesizers which replay music from memory in real time; video display terminal which shows musical notes and notations as well as English-language commands; an alphanumeric "typewriter" keyboard; and the high-resolution pen plotter, which prints scores complete with staves, bars, beams, title and copyright notice.

All system communication is done in simple English (or in other languages—translations are available from the manufacturer). The "typewriter" keyboard is also available in Braille.

As an example of the simplicity of the McLevier's interaction, the system says, "Huh?" when it doesn't understand a command as typed in. The user simply types "Help" when he wants to know what options are available at any



The Prism by Kinetic Sound

Prime Time™

Digital Delay Processor



professional quality delay plus special effects



Lexicon's new Model 93 "Prime Time" digital delay processor gives recording studios and entertainers an easy-to-use professional quality time delay with special effects and convenient mixing all at a price you can afford. It combines a degree of flexibility and versatility never before offered in equipment of full professional quality.

- Two delay outputs, independently adjustable from 0 to 256 ms
- Complete mixing for delay and reverb processing, freeing up main console channels and tape tracks
- Integral VCO for special effects like vibrato, doppler pitch shift, flanging and automatic double and triple tracking
- Long delay special effects — up to 2 seconds
- All dynamic functions can be footswitch controlled
- 90 dB dynamic range, total distortion below 0.08% at all delay settings

Lexicon

Lexicon, Inc., 60 Turner Street
Waltham, MA 02154 (617) 891-6790

Export: Gotham Export Corporation, New York, New York

SPECIAL REPORT: DIGITAL SYNTHESIZER SURVEY

junction.

Up to 128 voices are available in the McLeyvier, simultaneously and independently. It is designed as a composer's tool, for visualization during the creation of complex scores. The flexibility of the McLeyvier is enhanced by its ability to produce a printed score at any time during the building of the work.

The McLeyvier is based on an LSI 11/23 processor with 256 K byte RAM, four serial communications ports, Q to S bus interface, keyboard scanner, dual disk controller, and floppy disk drive. Optional additions enable expanded storage, multiple users, and additional graphics terminals. Controller options include 33-note piano keyboard, 61-note organ keyboard, 13- or 32-note organ pedalboard; velocity sensing; footswitches; external control-voltage interface (0-5 volts); and fader controls.

The basic system includes a real-time composition and performance language, with editing, transposition, tempo alteration, orchestration alteration, versatile keyboard split, synchronization, automatic tuning, etc. Each voice card has two digitally-controlled oscillators, one ring modulator, two digitally-controlled state-variable filters, one pink/white noise generator, two digitally-controlled envelope generators, one pair of digitally-controlled echo sends, a digitally-controlled external input, and one external output (1000 ohms). Each voice cabinet (which consists of a power supply and slots for up to 16 voice cards) will also accommodate a mixer/output card with the following modules: stereo output amplifiers; stereo echo returns mixer; audio metronome output; click track/external sync input; frequency counter; and voltmeter.

E-MU SYSTEMS

The Emulator is an all-digital, computer-based instrument that allows the musician to digitally record any

sound—either live from a microphone or from a line-level source—and then play that sound at any pitch over a four-octave range with up to eight-note polyphony.

With a built-in disk drive, split-keyboard capability and a built-in real-time multitrack sequencer, two different sounds may be played simultaneously—or one can be played while another is loading into memory. E-mu supplies a library of prerecorded sounds, and special function software is also available. For example a Multi-Sample package

ulation wheel for vibrato, and a second wheel for pitch bending in real time. The vibrato is assignable to either half of the keyboard or both.

Channels may be assigned using either fixed allocation of E-mu's "dynamic allocation" mode, where available channels are continuously reassigned to either section of the keyboard as needed. The front panel is uncluttered, designed for convenient operation. Sample length is two seconds per sound, bandwidth 20-10,000 Hz \pm 3dB.



E-MU Audity

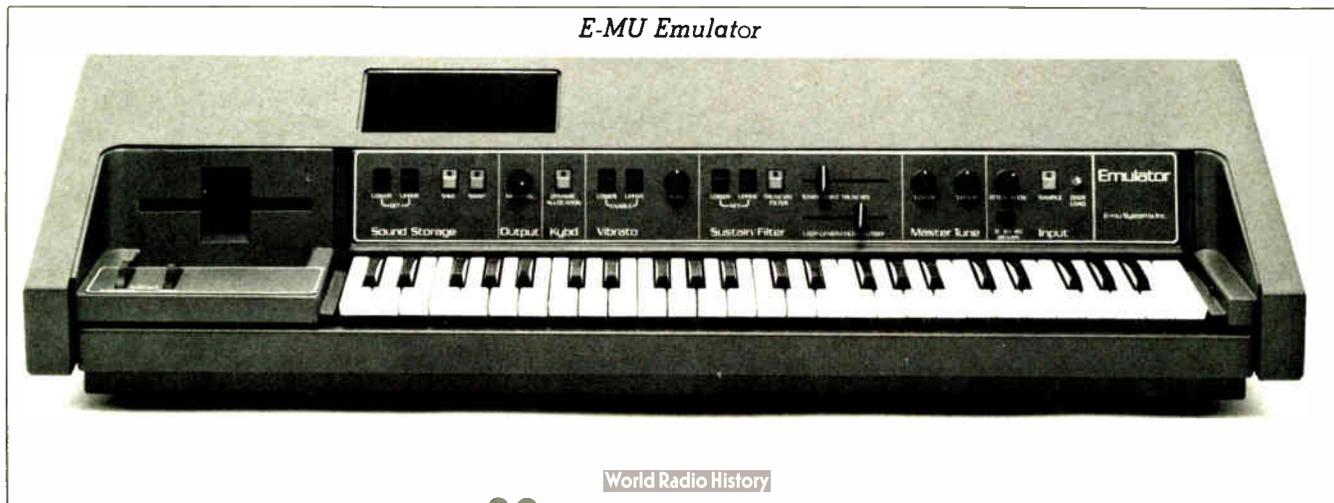
allows eight independent samples at half-octave intervals across the keyboard. This function would be useful when working with highly resonant sounds such as a violin, where resonant characteristics and timbres vary with pitch. Another application of multiple samples would be to use the eight groups to store drum sounds to simulate an entire trap set.

Standard Emulator features include a loop function which enables any sound to be sustained indefinitely, regardless of its original length; a mod-

In the digitally-controlled analog category, E-mu offers the Audity, with a custom microcomputer and up to 16 voice cards (or 64 on special order). Each voice has a complete analog synthesizer of "moderate" complexity and associated circuitry to allow computer control of over 100 voice-definition parameters. Each card is independently controlled by the computer.

The Audity's operation is rather like that of a multitrack recording system: sections of a composition are performed and edited independently—but

E-MU Emulator





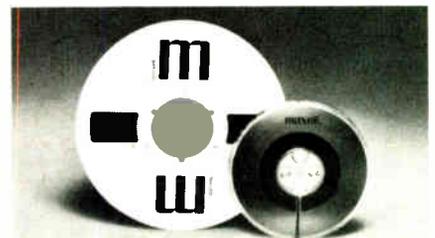
Exceptional reproduction.

Without exception.

For mastering and duplicating applications, you need audio tapes that are capable of flawless and dependable reproduction—all the time, under all circumstances. Editing and recording sessions are very demanding on all tapes. Maxell is made to take this kind of punishment, and then some! Our tape is manufactured with the studio engineer in mind, providing all the advantages of our most advanced tape technology.

You can depend on our state-of-the-art magnetic oxide formulas that can handle every signal with plenty of headroom to spare. And because of special calendring techniques, our tape finish is mirror-smooth, virtually eliminating dropouts.

The advantages of Maxell audio cassettes and professional open reel product don't end with our superior tape. Our cassette shells and take-up reels are manufactured to tolerances far exceeding industry standards. They silently and dependably transport the tape without stretching, jamming or breaking. Not only do you get a more faithfully reproduced signal with Maxell tape, you get to keep it longer, thanks to our advanced binder and mixing techniques. There are many other advantages to using Maxell. To discover more about Maxell's superior products, call one of our Regional Sales Offices: Eastern Office, Moonachie, NJ (201) 440-8020 ■ Midwestern Office, Des Plaines, IL (312) 296-1010 ■ Western Office, Los Gatos, CA (408) 395-1998.



maxell
PROFESSIONAL
INDUSTRIAL
PRODUCTS

The Professional Advantage

Maxell Corporation of America
60 Oxford Drive, Moonachie, NJ 07074

SPECIAL REPORT: DIGITAL SYNTHESIZER SURVEY

instrument sounds, of course, can be modified independently of musical lines. The controller is an E-mu 4060 microprocessor keyboard with sequencer. It is also possible to use other polyphonic controllers, or multiple monophonic or polyphonic controllers in combinations.

and transposition, a "safe" buffer for live editing without altering the stored version of a program, software-controlled levers and pedals which can be assigned to different functions, quad outputs, and a variety of arpeggiation modes. An interface is planned to enable use of a Rhodes Piano with the Chroma.

DIGITAL KEYBOARDS, INC.

There are two all-digital products in the Digital Keyboards line, the Crumar General Development System and the more performance-oriented Synergy. Both systems feature 32 completely programmable digital oscillators, microcomputer control, and velocity-sensitive keyboard.

The GDS consists of a Z-80-based general-purpose computer with 64 K bytes of memory, two double-density floppy disk drives and a video-display terminal with full keyboard. The 32 sliders, 12 rotary pots, two-axis joystick, spring-loaded return-to-center pot, 16 pushbutton switches, two footswitches, and variable footpedal are all software-assignable to perform many different functions in programming and operating the system. The GDS's velocity-sensitive keyboard resolves 256 different velocities and can be used to vary timbre as well as dynamics.

Voices on the GDS consist of two specified timbres, referred to as the "upper-bound" and "lower-bound" envelopes. Depending on key velocity, any of 32 combinations of upper and lower timbres can be sounded. A "sensitivity" control adjusts the degree to which timbre can be altered in response to key velocity, and a "center" control biases the sensitivity range toward one bound or the other. This feature enables the player to imitate the tonal dynamics of many instruments, or to create radical sound combinations by placing very different sounds on the upper and lower bounds.

Subject to the limits of 32 oscillators, up to 16 notes can sound simultaneously. Features include "intelligent" portamento or glissando (which permits the crossing of traveling notes), a variety of keyboard-splitting and voice assignment modes, an 8-track digital sequencer, text editor, and 600-ohm balanced audio output.



ARP Chroma by Rhodes

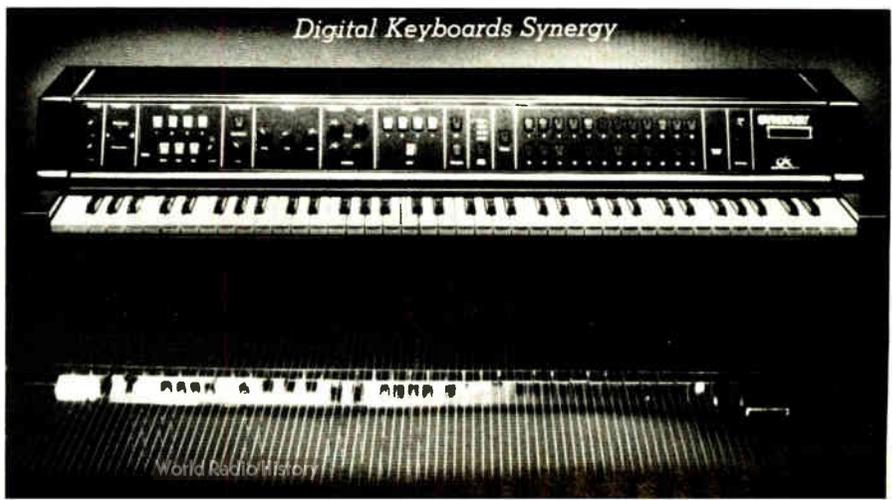
ARP CHROMA

The ARP Chroma by Rhodes is a digitally-controlled 16-voice synthesizer with a versatile, user-selectable system of real-time and programming controls. The Chroma's voices can be paired or layered in several different ways, including 8-voice mode with two oscillators per voice, 4-voice mode with four oscillators per voice, etc.

Each of the fifty touch-sensitive switches on the right side of the Chroma's front panel has more than one function, an outstanding illustration of the power of digital control. In performance situations, these switches represent the 50 different programs that are available online; in programming mode, they call up various parameters for editing using the two LED displays and an alphanumeric keypad; in diagnostic mode, some of the switches are used to show internal states such as battery wear and to perform infrequent tasks such as disabling an errant voice card.

Features include 63-key velocity-sensing keyboard (pressure sensitivity optional) an 8-channel recording system, a powerful program-linking scheme, programmable keyboard split

Each channel in the Chroma consists of the following sections: oscillator; waveshaper (either pulse or "saws"—a combination of pulse and sawtooth) adjustable in width from 0 to 100%; filter (low- or high-pass) with resonance adjustable from none to self-oscillating; amplifier with two envelope inputs and a third input for special modulations; glide—either smooth portamento or chromatic glissando; sweep, with 16 waveshapes and many other control features; and AR or ADR envelope generator; and another AR or ADR envelope with adjustable delay.



“Any sufficiently advanced technology is indistinguishable from magic.”

—Arthur C. Clarke



E-mu Systems, Inc.

417 Broadway, Santa Cruz, CA 95060

(408) 429-9147

SPECIAL REPORT: DIGITAL SYNTHESIZER SURVEY

The Synergy has eight complete programs online, a four-track sequencer with an 1860-note capacity, stereo outputs, a programmable pitchbend whose range is adjustable, three portamento modes, cartridge input to double the online capacity to 48 voices, and many other features derived from the design of the GDS.

and the DMX Digital Programmable Drum Machine.

The OB-Xa is an eight-voice instrument with 120 programs online. Features include programs to control keyboard split point, transpositions, balance and combinations of timbres.

The OB-SX is a six-voice synthesizer with 56 programs online which

The DMX contains digital recording of actual drum sounds. Storage capacity is 100 different drum sequences of any length or time signature. Like the sequencer, the DMX programs can be edited and stored, and sequences can be combined to form 50 songs. The DMX may be synched to the DSX or other external device, and a cassette interface facilitates permanent storage of an unlimited number of sequences.



SEQUENTIAL CIRCUITS

This San Jose, California-based company was among the first to use digital controls for analog synthesis, and the Prophet is one of the world's most popular synthesizers. Players have found that the Prophet-5 and Prophet-10 are easy to use both in terms of logical control arrangement and storage/retrieval methods.

In keeping with Sequential Circuits' commitment to continually update and improve their product line, they have introduced a new software feature which expands the storage capacity of the Prophet 5 (Rev 3.3) from 40 to 120 programs. They're arranged in three groups of 40, with decimal points in the program-number LED cells indicating which group is currently selected.

An analog interface for use with all Rev 3 (or later) Prophets enables the Mod and Pitch functions to be controlled by a pedal or other control voltage source. Any Rev 3 Prophet can be retrofitted.

OBERHEIM

Oberheim's digitally-controlled products include the OB-Xa and the OB-SX Polyphonic synthesizers, the DSX Digital Polyphonic Sequencer,

can be modified in real time during performance.

The DSX sequencer features ten ten-track sequences, interfacing with either the OB-Xa or OB-SX by parallel interface. Each sequence's ten tracks may be recorded and overdubbed with up to 16 musical voices as well as patch and split information. Sequences can be merged and chained; capacities up to 6000 notes are available.

YAMAHA

The CS70M is a programmable dual-channel synthesizer with 30 voices online, each with 39 parameters. With two banks of 15 presets, it is possible to mix two voices. Magnetic cards, each holding two presets, are the medium of storage.

Four independent sequencer banks store approximately 600 steps, with six-note polyphony; the 61-key keyboard can be split anywhere, and a "2/4-4/2" switch permits you to play two notes over the lower two octaves and four on the upper three, or vice-versa; a balance control lets you adjust the relative volumes of the two keyboard sections. An independent LFO can be used to modulate the VCOs, VCFs, and VCAs independently or in combinations, using either the modulation wheel, an optional foot pedal, or the keyboard's built-in after-touch sensitivity. Other features include chorus effect, tremolo with selectable speeds, independent portamento and glissando, and detune.

The emphasis of Yamaha's GS2 Digital Keyboard is on musical accessibility and simplicity rather than computer complexity. Yamaha's philosophy where this instrument is concerned



SPECIAL REPORT: DIGITAL SYNTHESIZER SURVEY



Yamaha CS70M

voice, microprocessor-controlled synthesizer with 40 programs and 20 program chains, three oscillators per voice and programmable pedal functions.

ALPHASYNTAURI

The AlphaSyntauri is designed for use with the Apple II computer. Because it is software-based instead of hardware-based, updates and modifications are easy to install.

The hardware consists of sound generating system, keyboard interface, and the Apple II computer. Performance features include 8-voice polyphony, stereo output, 27.5-13,500 Hz range, 32KHz sampling rate, two independent oscillators per voice (each with its own waveform and envelope), a 61-note velocity-sensitive keyboard, sustain and portamento pedals, vibrato (rate, depth and waveform controlled), tremolo, pitch bend, chorus, and detuning. The keyboard can be transposed in quarter-tone increments, and three scales are built in: even, international, and just.

Sounds may be defined in a variety of ways: additive synthesis (wherein user specifies harmonics and their amp-

seems to be to save musicians from having to become computer operators without compromising the versatility that comes from computer control.

The GS2 uses Frequency Modulation (FM) synthesis for its voices, with 16 memory locations loaded from magnetic cards. Thirty-two voice cards are supplied, and Yamaha plans a continuous program of new voice-card releases.

The velocity-sensitive keyboard offers tactile control of volume and timbre; vibrato *and* tremolo pedals feel just like grand piano pedals, and a damper pedal is provided as well; keyboard range is six octave (73 keys); separate outputs are provided for stereo (either balanced or unbalanced) operation, as well as a mixed unbalanced output; 16 notes may be played at a time.

MOOG

As reported elsewhere in this issue [Music Notes, page 64], Moog Music has recently introduced the Digital Sequential Controller (DSC) a microprocessor-controlled, monophonic sequencer/controller. Total storage is approximately 800 notes, with the ability to edit single notes in a sequence by use of a "single-step" mode. Key changes can be programmed and a cassette interface is provided.

Moog has also announced plans to introduce the Memorymoog, a six-

HOW TO BE QUIETLY SUCCESSFUL FOR \$350.* Now that you're committed to making it in the pro world, give yourself some professional advantages. Like dbx noise reduction. The new dbx Model 150 gives your tape machine the dynamic range of digital. Perfect punch-ins and decoded monitoring without special switching. In a slim-line, rack mountable 1 3/4" package, it fits in easily with other studio equipment. And, it's expandable to grow as you grow. Professionally. See your dbx Pro dealer, or write for complete technical information.

*Manufacturer's suggested retail price.



Model 150 Type I Tape Noise Reduction System

dbx, Incorporated, Professional Products Division,
71 Chapel St., Newton, Mass. 02195 U.S.A.
Tel. (617) 964-3210. Telex: 92-2522. Distributed in
Canada by BSR (Canada) Ltd., Rexdale, Ontario.

dbx®

SPECIAL REPORT: DIGITAL SYNTHESIZER SURVEY



litudes), Hammond B-3 drawbar emulation, pulse wave generation, and free-hand drawing of waveforms. Each diskette can store up to 190 different sounds stored in 10-instrument banks.

Having an Apple II computer means that your synthesizer can be used for other work, including scheduling, billing, inventory and text editing. The system is modular, so it may be enhanced and improved at any time.

FAIRLIGHT CMI

The Fairlight CMI offers four modes of input for sound definition: sampling by microphone or line input;

drawing a waveform with a light pen on a CRT terminal; computer-assisted waveform definition; and "sound animation"—computation of gradual transformation of one drawing into another.

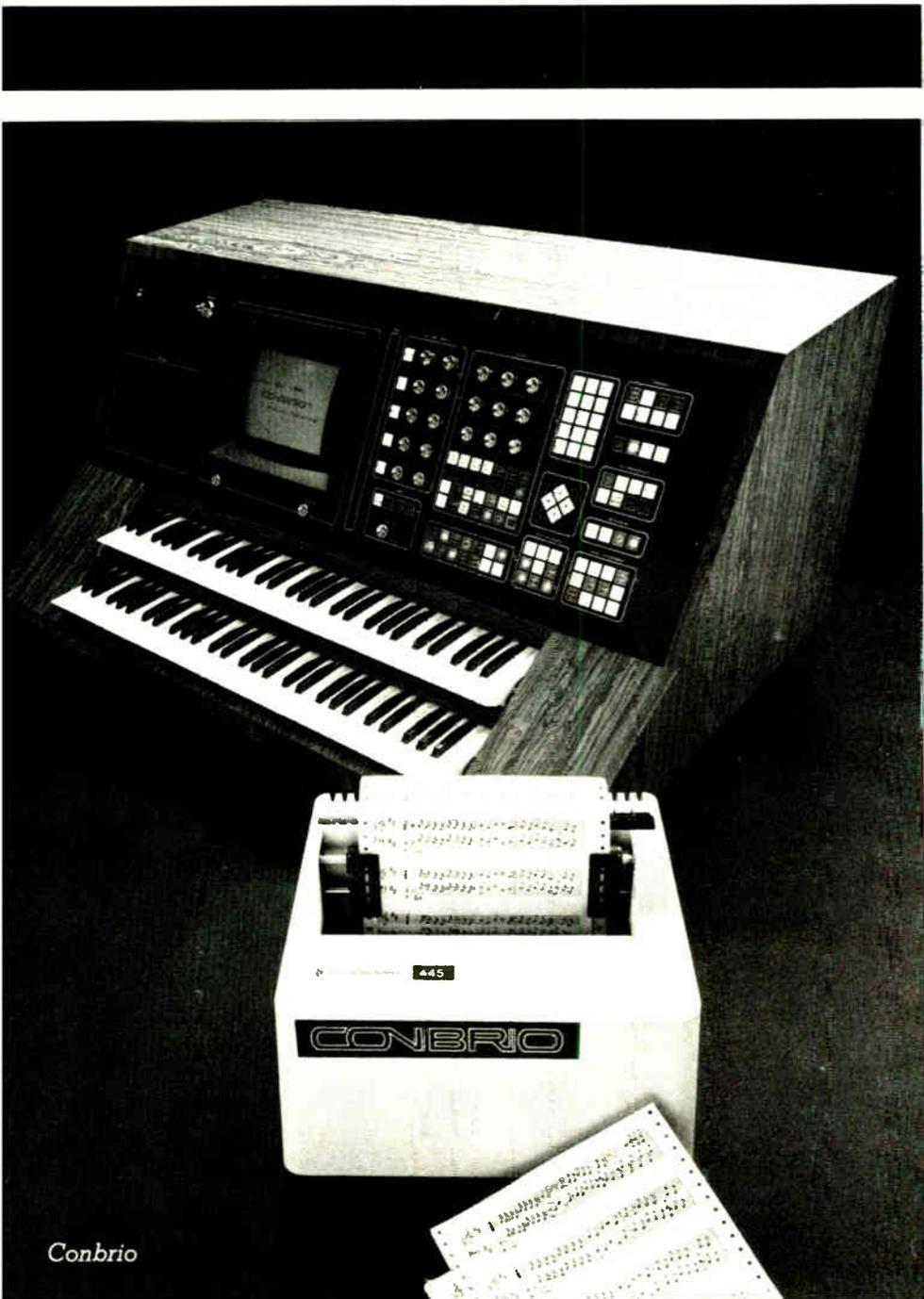
According to the Fairlight's manufacturer, "A sound is stored in a frame-by-frame fashion similar to the drawings in a cartoonist's flipbook. When you play a note on the keyboard, you flip through each of 128 waveform drawings, stopping only for "loops" (groups of drawings to be repeated). The pitch of a given sound stored in memory relates to the speed that the memory is flipped through."

The Fairlight system consists of

one or more music keyboards, a graphics display with light pen, "typewriter" keyboard, a computer which also may be used for nonmusical applications such as studio operation and accounting.

Output is eight separate channels. A SMPTE time code interface card is available for use with film, video, or console automation. Other features include portamento, glissando, sound reversal, combination of sounds, selective blending of partial sounds (e.g. piano attack and synthesized sustain), a composition language, software control of pedals and switches, music printing, and an analog interface.





Conbrio

CONBRIO

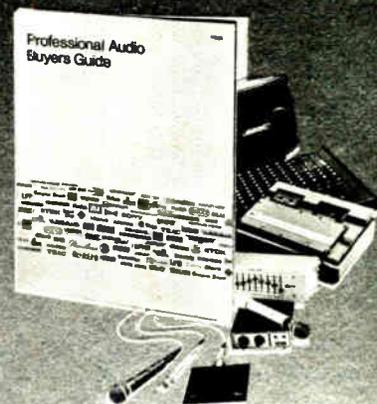
Five microprocessors run the Conbrio, which features 64 multiwaveform digital oscillators (expendable to 256), each with independent 16-segment amplitude and frequency envelope generators. Output is to two 16-bit channels with 96 dB of dynamic range.

Analog controls are used wherever practical, and buttons light in sequence to aid the user. The two five-octave keyboards can be split anywhere, and elaborate keyboard setups can be grouped on the 8" floppy disk and sequenced for step-through during live performance. An unlimited number of polyphonic tracks may be stored on the disk, with up to four tracks played back

simultaneously.

A video-display terminal and optional line printer may be used in conjunction with a music programmer for composition, editing and printing of scores. Synthesis modes include additive, phase modulation, frequency modulation, nested phase and frequency modulation, and combinations of all. Real-time controls—operated either from the console or foot pedals—include vibrato depth and rate, release rate, and playback tempo. An Interval coupling feature memorizes polyphonic intervals, enabling the playing of chords with a single key. Many arpeggiation modes are offered, as well as programmable keyhold from either the console or a footswitch. ■

Finally it's here the PROFESSIONAL AUDIO BUYERS GUIDE™



Have at your fingertips information on professional audio products by AKG, Altec, Anvil, Atlas, Beyer, Blamp, Bose, Conquest Sound, Crown, DBX, DMI, Electro-Voice, JBL, Klipsch, NEI, Neumann, Otari, Revox, Sescam, Shure, Sony, Tapco, Tascam, TEAC, Yamaha, and many more.

BE INFORMED! The PROFESSIONAL AUDIO BUYERS GUIDE™ includes thousands of products from over 70 major manufacturers of speakers, mixers, amplifiers, microphones, recorders, equalizers, analyzers, and more

Order your copy today for only \$15.95. Call with your VISA or MasterCard number or send your check to:



P.O. Box 4139, Thousand Oaks, CA 91359
213/991-3400

Ask about our special dealer, bookstore, and educational quantity prices.

Name _____

Organization _____

Address _____

City, State, Zip _____

Send _____ Professional Audio Buyers Guides™ at \$15.95 each.

Enclosed is my check for \$ _____

Charge to my VISA/MasterCard (circle one)

account number _____

Expiration date _____

**Mail to SIE Publishing, P.O. Box 4139,
Thousand Oaks, CA 91359**

PG 1 3456789

PRODUCERS DESK



PHOTO: RICK DRAMON

EDDIE OFFORD

by James Riordan

Eddie Offord is credited with helping to establish the mode of sophisticated rock which evolved from English rockers like Yes and Emerson, Lake & Palmer, both of whom he produced or engineered. As co-producer of seven albums by the supergroup Yes, Offord secured his reputation in the music world as evidenced by the fact that he has been named one of the Top Ten Producers by *Melody Maker* magazine for the past ten years in a row. Offord has produced and engineered albums for John McLaughlin, Levon Helm, Paul Butterfield, Billy Squire, David Sancious, and Andy Pratt. He recently established Eddy Offord Studios in Atlanta in what was formerly the East Point Theatre.

Judging by the variety of acts he has worked with, it is obvious that Offord places originality high on his list of criteria for producing an act.

"I would not produce an act that was a clone of another. I look for acts that have their own sound. It's not that they have to be incredibly amazing musicians, it's just that they have to have their own direction. Right now I'm doing an album with the Dixie Dregs who have always done their own thing. And then after this I'm going to do an album with a Detroit band called Art In America. They have a harpist in the band. He plays an amplified harp and it sounds very different and refreshing. I'm also working with Chris Squire's

new band."

"I was an engineer for five or six years and then I co-produced the first Yes album," says Offord. "After that I became an engineer/producer. I think a lot of engineers who become producers have a tendency in the studio to put the sound first rather than the performance. They might for instance put the bass player and the drummer in opposite places in the studio to get better separation. Or they might want to redo a vocal take because the levels weren't quite right or something but, if the performance is good, then as an engineer you have to really look at that first. Look at the artists first and the sound second."

Like most of his contemporaries Offord believes in pre-production whenever possible. "I think pre-production is real important. The only exception is if the group is so well advanced that they can do their own pre-production or can maybe put it together in the studio because they know their music and each other so well. Usually pre-production is very essential."

Offord's new Atlanta studio is unique in a variety of ways. The console is situated in the orchestra pit area with the musicians on the stage. There is no physical barrier between the musicians and the board as is the case with virtually all "control room" set-ups.

"My studio has no glass between me and the musicians, which is sort of different. I work in a real different kind of way. What I do is put all the musi-

cians on a stage. The guitar head and bass head or whatever are all on stage, but all the speakers are in other rooms around the building. All you hear on the stage when you're doing basic tracks is the drums, so it enables me to not have to mike the drums close if I don't want to. I can mike them from twenty or thirty feet away if I want to. And then I have this really ingenious headphone mixing system where every musician gets his own mixer. If the guitarist wants to hear more guitar he can mix it himself without having to hassle the engineer. It works so well. We can get like perfect separation. We're still able to mike from a distance and get ambient sounds."

The problem many producers who own studios face is having to please other producers. Says Offord, "I rarely let other people use the studio. It's not really a commercial studio. It's just for myself and occasionally I'll let a friend or someone I know use it. Mainly because of the fact that your regular engineer or producer would be shocked coming into a studio where there's no window."

"As far as up-to-date equipment goes I'm not crazy about automation so I've pretty much bypassed all of that. What I'm trying to achieve with my studio is a real good live sound. As long as the mike amplifier on your desk is state-of-the-art and you use the best microphone and you put it on the tape right there's not much else that can go wrong. Automation can be a time saver when you're mixing, especially if you're working on thirty or forty tracks. Because I have my own studio I can afford to take a little more time about what I'm doing in order to do it the way I prefer."

Having a studio built inside a former theater might lead one to think Offord is another of the growing group of sound producers making a serious jump into video, but Offord is still considering. He plans to use the studio for radio broadcasts and video, but that is not the prime purpose.

"Some people think that the problems of the record industry can be saved by video. I think that's a cop out. Video will be a viable medium, but not the savior of the music industry. Most of the videos I see are kind of lame. I think video is a very exciting thing but I think people are looking at it the wrong way. I think the cause and the answer of the music industry's problems are in the music itself." ■



T.M.

DISK MASTERING WOULD LIKE TO THANK

A&M
ARISTA
CAPITOL
CBC
CBS
CHALFONT

Danzas Fantasticas
Empire Strikes Back
Kings Row
Organ Works of Bach & Frank
Scheherazade

DBX
DELOS
JVC
KLAVIER
KM RECORDS
MCA

Crusaders
MOSS MUSIC

NAUTILUS

Air Supply
Allman Brothers
Ambrosia
Joan Armatrading
Joan Baez
Eric Clapton
Rita Coolidge
Crystal Gayle
J. Geils
Little Feat
Moody Blues
Pablo Cruise
Police
Pretenders
Procol Harum
Lee Ritenour
Linda Ronstadt
Styx
James Taylor
Gino Vanelli
Grover Washington
Tim Weisberg

POLYDOR
SEFEL
SONY
SOUNDSTREAM
TECHNICS
TELARC

1812 Overture
Boito
Firebird
Gershwin Rhapsody in Blue
Rite of Spring
Saint Saens 3 Symphony

VARESE SARABANDE
Dvorak
Holdridge
Latin American Symphonette
Rodrigo
Tchaikovsky

WARNER BROS.
WORD RECORDS

....FOR THOSE WHO DEMAND THE FINEST....

FULL SPEED/HALF SPEED
THE STATE-OF-THE-ART AUDIOPHILE
CUTTING FACILITY FOR
DIGITAL & ANALOG

A Roundup of Southern Studio News

by Sam Borgerson



New East Wing Studio, Criteria.

Has the recession brought a chill to recording activity in the sunny South? Apparently not, at least that's what we gather from this sampler of news from the eastern half of the booming Sunbelt.

SOUTH FLORIDA

"It has at least lived up to our expectations," says Mack Emerman of Criteria, "perhaps even surpassed them."

He's referring to the Miami studio's new East Wing, which opened last summer. The unique studio, designed by John Storyk in conjunction with the Criteria staff, features a nine-sided control room with monitors custom designed by Ed Long. Criteria's new disk cutting room is placed directly above the studio control room, and has the same shape and acous-

tic characteristics. Cutting equipment includes twin Scully lathes with Ortofon heads, plus a custom console with floppy disk memory for storing all the cutting parameters.

Also within the year, Criteria has acquired the Road 80 truck, refurbished it, and then entered into a joint venture with Videotape Associates of nearby Hollywood, Florida to provide complete production facilities for video music. On top of all this, Criteria has expanded its capabilities for film-to-video transfer and post-production sweetening.

Beyond all the expansion and diversification, Emerman sees a sunny future for Criteria—a contrast with some woes of the recent past. "We hope next year will be better than this last year," he remarks, "even though this last year was better than the year before, but then the year before that was a disaster."

Moving north, past Fort Lauderdale and into Pompano Beach, we find this mood of cautious optimism reinforced at Audio Image.

"For us, business is on the increase," says the studio's owner, Rob Henion. "But for others it's on the decrease. We're into a sorting out situation, where there is less business overall, so people are looking around for a place where they can get good quality product and good service. I think the quality studio in the price range between \$50 and \$100 an hour will do well in this market, but the studio above the \$150 range may well see difficult times ahead."

Henion's 16-track facility has expanded the studio space recently, adding a string/horn ensemble room and doing some general redecorating. The studio attracts a variety of clients,

including local and regional bands for album and demo projects, plus—increasingly—a growing number of advertising jingle sessions. Henion admits that a lack of experienced studio musicians has hindered growth in the past, but the situation is improving. "We now have a small number of excellent musicians," he says, "but they don't come cheap."

ORLANDO

Up in the land of oranges and Mickey Mouse, Eric Schabacker of Bee Jay says he's taken a new angle in promoting his studio. "I say it just makes dollars and sense," he puns shamelessly. "We don't nickel and dime you to death, with a little more here and there for peripheral gear. What I normally do is find a group, ask them what they're looking for, and then come back with a bottom-line proposal showing them how they can save money."

Apparently the strategy is working, since Bee Jay continues to land major label projects, mostly involving up-and-coming groups. This approach is essential because Bee Jay does very little ad work, and single artist projects are still

limited by the relatively shallow pool of local studio musicians.

Schabacker is also eyeing video carefully. "I wouldn't mind marrying the right video partner right now," he confesses. "I'm not ready to plunge in on my own, but if I were to find, say, somebody in video who was tired of the blizzards in Boston and wanted to relocate to the South, then I might 'propose' to that person."

Northeast video readers, take note.

MUSCLE SHOALS

Here on the soulful back porch of Alabama, the big news is booze! Muscle Shoals and environs have finally gone wet, after countless decades as a dry county. Now you don't have to cross the Tennessee line when it's Miller time.

Terry Woodford of Wishbone Recording credits this change, in part, to the growing clout of the Muscle Shoals Music Association. He hopes the development of a club scene will give musicians another means of support and thereby broaden the musical base of the area.

As for Wishbone itself, the 24-track

Southeast Session News

Recent studio activity at **Doppler Studios/Atlanta** includes chief engineer **Bill Quinn** mixing 'Dancin' To Your Heartbeat' by **Buddy Causey & The Handsome White Boys** for WKLS-FM/96 Rock's "Home Cookin' LP". Engineer **Brad Jones** mixed songs by **Mother's Finest** for an upcoming TV special. And **.38 Special** was in mixing for a video presentation with **Rodney Mills** engineering and producing.

Pete Shackett, singer-songwriter from Madiera Beach, Florida, recently completed his first 45 for his own Shagnasty Records. The recording took place at 24-track **Paul Hayes Studios** in Tampa, Florida and was produced by **Harry Dailey** of Jimmy Buffett's Coral Reefer Band, **Gary Rivera** engineering. Current studio activity at **Music City Music Hall** in Nashville, TN, includes: Irish flautist **James Galway** cutting his next album for RCA. **Tom Collins** is the producer and **Bill Harris** the engineer. Arranger **Bill Walker** is cutting new sessions on **Leroy Van Dyke**. **Bill Vandevort** is engineering the sessions.

The **Marshall Tucker Band** has finished mixing a live concert at **Triad Recording Studios** in Ft. Lauderdale, FL, for Warner Amex/MTV. The mixes for the video concert were produced by band member **George McCorkle**, and engineered by

Kevin Herron with assistance by **Vincent Oliveri** and **Robert Corti**.

Soul singer **Al Green** was at **Sound Emporium** in Nashville, TN, to continue work on an album for Word Records. Strings and horns were added at this time. The project, a collection of gospel 'classics' in modern settings, was produced by **Tony Brown** and executive producer **Ken Harding**. **Billy Sherrill** is engineering the recording.

Annette Funicello is at **Criteria Recording Studios**, Miami, FL, recording a Skippy peanut butter commercial for the **Dancer, Fitzgerald & Sample** agency. **Glen Laredo** is producing, with **Dennis Hetzendorfer** engineering.

From **Woodland Sound Studios**, Nashville, TN, **Rosanne Cash** is cutting tracks for her CBS album with producer **Rodney Crowell**. **Bradley Hartman** is behind the board with **Rick McCollister** assisting. Producer **Ed Penney** is mixing **Terri Gibbs** new MCA single. **David McKinley** is engineering. Producer **Ray Baker** is mixing a **Judy Bailey** single for CBS Records. **Rick McCollister** is engineering.

The **Artisan Recorders' Mobile Unit** out of Pompano Beach, FL, was on location recently, recording Warner Brothers artist **Jaco Pastorius'** 30th birthday party at Mr. Pipp's in Ft. Lauderdale. The party

featured a 24 piece band led by **Jaco** and including **Michael Brecker**, **Bobby Mintzer**, **David Bergeron**, **Don Alias**, **Peter Erskine**, **Bobby Thomas**, **Othello**, **Peter Graves'** horns, and others. Other recent live recordings include the 250 piece **Florida Mass Choir**, and the **Ft. Lauderdale Symphony Orchestra** with **Emerson Buckley** and **Thomas Michalak** conducting, and guest soloists, **Pierre Fournier** and **Jose Ramos-Santana**. All these recordings were engineered by **Peter Yianilos** with assistance from **Stan Johnson** and **John Catalano**.

MorriSound Recording of Tampa, FL, recently provided a full range of audio services at a concert being videotaped for a television pilot. Concert sound reinforcement was engineered by **Jim Morris** with assistance from **Fred and Elaine Grunewald**. A separate audio feed for video tape and simultaneous eight track recording were provided via the **MorriSound Mobil** control room. Engineering for mobil operations was provided by **Tom and Laurel Morris**. Recording at **Columbia Studios**, Nashville, TN, includes **Joe Stampley** for Epic Records, **Ray Baker** producing and **Ron "Snake" Reynolds** engineering; **Johnny Paycheck** for Epic and **Calamity Jane** for Columbia, **Billy Sherrill** producing and **Snake** engineering.

facility is bouncing back from a nearly disastrous fire that broke out in the video division annex last May. Although the fire was contained to the offices, the smoke damage in the studio was so heavy that they were forced to shut down for six months. The studio was torn apart and refurbished top to bottom. When they re-opened in November, the crew immediately went to work on album projects for Mac McAnally (Geffen Records) and English songstress Grace Kennedy.

Like other local studios, Wishbone relies almost totally on music production, since Muscle Shoals is too isolated to attract any significant advertising business. "People come to Muscle Shoals to get a hit record," says Woodford, "but this may not be the place to get a better commercial."

Wishbone's video music division, Flying Colors, is finishing up work on its ¾" video editing suite. Flying Colors approaches video music through "visualization"—utilizing graphics, animation, and stock film footage rather than simply showing the artists mimicking a performance.



PHOTO BETH GWINN

B.B. King and pickers at Music City Music Hall.

MEMPHIS

"A lot of people feel that Memphis is about to come around again and re-

gain its national reputation," says Dave Rasmussen of Ardent Recordings. "We've had a lot more label people coming in here to look at the talent, and although nothing solid has happened in this regard, I wouldn't be surprised if some labels opened offices here."

Rasmussen's optimism was based on a solid spurt of fall activity, including sessions with the Bar Kays, Kwick, and Chocolate Milk—all of whom have now hit the soul charts. Although Black music is the hottest right now, Ardent's booking time is split about evenly among soul, rock, and contemporary Christian/gospel sessions. The studio does practically no advertising work, and, except for a few ventures in conjunction with a local TV station, video is not yet in the picture.

After the decline and fall of the Stax label a few years back, many of the best Memphis musicians packed up and moved to Nashville, something that "hurt Memphis a lot," according to Rasmussen. But now he sees a revival on the banks of the Big Muddy, with several studios expanding and renovating for what they see as a good future.

NASHVILLE

Nashville still has a solid grip on its position as the recording center of the South, and as it steadily expands its musical horizons beyond the country genre, the Tennessee capital has become a serious challenge to both New York and Los Angeles.

Owen Bradley's Music City Music Hall led the way in 1981, booking in such names as Joe Cocker, the Crusaders, Leon Russell, B.B. King, and classical/pop flutist James Galway. The Music Hall was also the first studio in the U.S. to take delivery on the new transformerless Studer A-80 24-track and the A-80 VU ½" two-track.

Just up the street, the much-heralded Bullet Recording is now open for business. Randy Holland's bold venture into full-blown audio/video kicked off with a 48-track, 6 camera audio/video session for drummer Joe English (formerly with McCartney's *Wings*) and his contemporary Christian rock band. The Solid State Logic console, the twin Studer A-800's, the Crosspoint Latch switcher, and the Sony 1" VTR's all performed flawlessly; and the invited guests from the press and the music business departed suitably impressed.

Bullet's Studio Manager, Piers Plaskitt, reports bookings for album and advertising projects—both audio and video—are gaining momentum, with many clients coming down from New York. A video music variety show, hosted by Rounder Records artists Riders in the Sky, is also in the works.

When Bullet was built, it absorbed a small adjacent studio, Island Recording. Undaunted at the displacement, Island's owners repaired to the suburbs of Berry Hill and began construction, from the ground up, of a new facility. When opened late this winter with the new name of Mariner Recording, it will
(continued on page 34)

Pro Audio Rentals, Inc.

Offering "state-of-the-art" sound reinforcement and signal processing equipment to studios, producers, musicians, and engineers.

Now Available:

New Sony Digital Reverb (DRE-2000); ADR Vocal Stresser and "Scamp" Rack; Super Time Cube; Prime Time M-93's; 2- and 24-track Dolbys; 24-track dbx; UREI LA-3As. Also: dbx 160s and 165s; Omnicraft, Orban, and other top-of-the line signal processing equipment.

Just Arrived:

Studer A-80 ½-inch mastering recorder.

Daily and Weekly Rentals
We Ship Anywhere!

Contact Tom Semmes
or Dave Hieronymus
in Nashville at:

(615) 297-0211
(615) 747-5888

PARKER • ANTHONY LOCKETT • LARRY BLACKMON • PAUL MITCHELL • JAMES MILLIKEN • JIM RIGGINS • BOHANNON • MOSE DAVIS • JIMMY JACKSON • PAPA DON SCHROEDER • KEITH SULLIVAN • TOM TOM PRODUCTIONS • EMANDOLYN MUSIC • LYON'S RECORDS • THE PRESS • BRENDA PEPPER • MUSIC MAKERS • ELS • LEGZ • SEQUENCE 8 • ALVIN FEW • TOMMY ELLISON • SAUNDRA FRANKS • ROBERT RAY • ALAN FEINGOLD • HEATHEN GIRLS • SANDRA V. & TNT • MARY WELCH • SISTER POPE & THE PEARLY GATES • 7TH WONDER • LA. CONNECTION • RANDY BROWN • SUSAN BISHOP • PEENO • REV. BARNES & SISTER BROWN • REV. THOMAS WALKER • HAMILTON BOHANNON • MOSE DAVIS • BEN MOORE • SULLIVAN • SOUTHERN COMPANY • WRIGHT / RACE • MANNY CAMPBELL • ANTHONY LOCKETT • ALVIN FEW • GARY SHIDER • JOHN WATKINS • IAN BROWN • WENDELL PARKER • JOE JENNINGS • ROBERT RAY • ALAN FEINGOLD • MARK STOWE • CHUCK VARNEY • LARRY BLACKMON • PAUL MITCHELL • JAMES MILLIKEN • JIM RIGGINS • BOHANNON • JIMMY JACKSON • PAPA DON SCHROEDER • KEITH SULLIVAN • TOM TOM PRODUCTIONS • EMANDOLYN MUSIC • ATLANTA INTERNATIONAL RECORDS • NEIGHBORHOOD ARTS CENTER • RON FREEMAN • CRAIG RABINER • SCOTT ROBINSON • RODNEY CULPEPPER • TEMMPO • ATLANTA ARTIST • PHASE II RECORDS • BOB SOWELL • FIFTH AVENUE • FRENZY • CUZ • BILLY GEORGE • RUCKUS • BOHANNON • LARRY GARRISON • LYON DAVIS • ROB SENN • MC IVER • SPOILED DANCAN • PALMER HOWARD • RANDY SONIC • DON KISER • OVETSKY • 96 ROCK • SPOILED ROTTEN • ROSS BROOKS • RICK DIAMOND • THOMPSON • LITTLE STEVE SCHIFFMAN • MUSIC MAKERS • ELS • PRESS • LEGZ • 7TH ELLISON • SAUNDRA RAY • MIKE GREEN • HEATHEN GIRLS • MARY WELCH • L. MOORE • WENDAL LOCKETT • RANDY BOHANNON • MOS MANNY CAMPBELL • PEARLY GATES • IA



The staff of Cheshire Sound Studios would like to thank all of these people for making our first three months of operation . . . Fantastic!

BROWN • SUSAN BISHOP • PENNO • REV. BARNES & SISTER BROWN • REV. THOMAS WALKER • SOUTHERN COMPANY • WRIGHT / RACE • MANNY CAMPBELL • ALVIN FEW & GARY SHIDER • JOHN WATKINS • JOE JENNINGS • ROBERT RAY • ALAN FEINGOLD • MARK STOWE • CHUCK VARNEY • MIKE GREENE • WENDELL PARKER • ANTHONY LOCKETT • LARRY BLACKMON • PAUL MITCHELL • JAMES MILLIKEN • JIM RIGGINS • BOHANNON • MOSE DAVIS • JIMMY JACKSON • PAPA DON SCHROEDER • KEITH SULLIVAN • TOM TOM PRODUCTIONS • EMANDOLYN MUSIC • ATLANTA INTERNATIONAL RECORDS • NEIGHBORHOOD ARTS CENTER • RON FREEMAN • CRAIG RABINER • SCOTT ROBINSON • RODNEY CULPEPPER • TEMMPO • ATLANTA ARTIST • PHASE II RECORDS • PAPA DON PRODUCTIONS • KEITH SULLIVAN • BOB SOWELL • SOUTHERN COMPANY • FIFTH AVE • FRENZY • BILLY GEORGE • RUCKUS • CUZ • PAT TRAVERS • LARRY G. HUDSON • ALVIN FEW • LYON'S RECORDS • BOB MC IVER • RAY OVETSKY • KING BISCUIT FLOWER HOUR • ROB SENN • WILLIAM GARRISON • TOM BARFIELD • W.C. ENTERPRISES • PALMER & THE PUSH • GLEN HOWARD • PAPA • BACKPORCH • SKIP MC QUINN • SPOILED ROTTEN • JOHNNY DANCAN • DR. JOE MC MILLIN • ROSS BROOKS • REV. WHITE • ULTRA - SONIC • RICK DIAMOND • DAVID COLE • DON KISER • KENNY THOMPSON • 96 ROCK • RANDY SCOGGINS • LITTLE RICKY • STEVE SCHIFFMAN • BRENDA PEPPER • MUSIC MAKERS • ELS • LEGZ • SEQUENCE 8 • THE PRESS • TOMMY ELLISON • SAUNDRA FRANKS • ROBERT RAY • ALAN FEINGOLD • ATLANTA INTERNATIONAL RECORDS • HEATHEN GIRLS • SANDRA V. & TNT

be one of the few large studios built from scratch in Nashville in several years. The concrete block outer walls were laid non-parallel and filled with sand, all according to acoustic specifications. When completed, the facility will boast fireplace, whirlpool bath, sauna, and wet bar. Although the studio will not open with video capabilities, it was designed with a video future in mind.

Recording business at Woodland Sound Studios has been much better than expected for 1981. In fact, it looks as if it will be one of their better years from the stand point of sales, if not profit. Woodland's philosophy has been to hold down pricing and to be ultra-conservative in spending so that the record companies would not feel that studio costs are escalating and that they are getting value for the dollar spent.

Woodland has had no rate increase during 1981 and has actually increased its business over 1980. Unfortunately costs have risen in almost every department and so the profit squeeze is a realistic one. Woodland is hopeful that they can maintain this position of economic conservation throughout 1982 and continue their full service of recording, mastering and audio for video.

Nashville lagged behind the two coasts in digital applications for a

couple years, but that is now changing, thanks largely to a new company called Master Technologies, a branch of the Masterfonics disk mastering studio.

Glenn Meadows, renowned disk mastering engineer and partner in Master Technologies, reports that more than a dozen LP's have been mastered with their JVC digital unit—most of them country or gospel projects done in Nashville. Producer (and Elektra/Asylum V.P.) Jimmy Bowen has been a prime customer; he has a goal of converting his entire catalog to digital masters as soon as possible.

Meadows is very enthusiastic about the results so far. "Disks cut from a digital two-track sound better than the same disk cut off an analog tape," he notes. "There's a symbiotic relationship between a digital recorder and a cutting head, because both systems basically stop at 20 kHz. With that kind of sharply band-limited signal, you're not trying to excite the cutting head up where it can't respond. You end up with a cleaner sounding disk because there's nothing up there creating strange harmonics."

Meadows also reports a significant increase in the number of 1/2-inch two-track tapes coming in for disk mastering. The wider tapes, primarily from Nashville but also from Atlanta and Austin, now make up almost 1/3 of the

business at Masterfonics.

RICHMOND, VIRGINIA

"We're a member of SPARS and I've attended a few of the meetings where I've talked to people from the 'record' studios," says Eric Johnson of Alpha Audio. "I found that some of them are having a tough time and are looking to diversify. Well, studios like ours have been diversified from the beginning. We never had the big dollars coming down from the record companies, so we diversified our business from the time we opened."

The booking mix in Alpha's four rooms varies from month to month, but it averages out about 50% music production and 50% advertising. Alpha recently installed a Sony 3/4" system with a BTX synchronizer for video sweetening and film post-production. In addition to TV ad work, Alpha also does a good amount of soundtrack work for industrial A-V presentations. Record projects come primarily from regional groups on small labels, a trend Johnson sees on the upswing as major labels cut back on new signings.

"We're up overall from last year and doing quite well," says Johnson. "We're encouraged by the recording business as a whole, though not by the record business."

MASTER TECHNOLOGIES, INCORPORATED

**Advancing the state-of-the-art in
recording technology in Nashville.**

Providing rental of the JVC System 90 Digital Recording System for 2-track recording, editing and mastering.

Also available with the System 90 is the capability of editing and mastering from the *New* 14BIT EIAJ standard equipment now becoming available.

Providing the Outer Ear to disk mastering houses.

Soon to come—other high technology equipment for rentals.

**MASTER TECHNOLOGIES, INC.
28 Music Square East
Nashville, TN 37203
(615) 327-4533**

An allied company with
Masterfonics, Inc.
Nashville's Premier
Mastering Facility



Bill Kovach, visual media coordinator for "Creative Sound Concepts," synchronizes audio and video tracks for an Old Hickory House restaurant spot.

jingle and spot radio production for local advertisers as the operation's "bread and butter." Creative Sound Concepts, located at 1066 Briar Vista Terrace, NE, Atlanta has already produced spots for Old Hickory House and Atkins Park restaurants, and for U-Pull-It Auto Parts.

Recent backing from private investors has enabled Baxter to renovate his recording facility which had its beginnings, similar to other successes of its kind, in his basement. Full sixteen channel equipment is scheduled to be operational by early January, 1982.

Projecting the future for the working formula of Creative Sound Concepts and for other progressive musical enterprises, Baxter said trends indicate stability and wealth in Atlanta as a music center. "Looking at our regional tastes and our regional markets, which include large rock, black and country audiences, Atlanta can be a center for Alabama, Florida, South Carolina and Georgia markets. And I think local musicians and regional record companies can all make a comfortable living while satisfying these regional tastes." ■

ATLANTA

by Brenda Crayton

Dennis Baxter of Atlanta's Creative Sound Concepts thinks he's found a workable formula which will achieve success through marketing to regional needs in film, video and advertising production.

"There are so many studios in this town that we had to come up with a different concept. We don't want to be just another recording studio that opens its doors and says, 'Here we are. Come and get it,'" explained Baxter, owner and principal financier of the enterprise, and a graduating senior in the Georgia State University College of Business Administration.

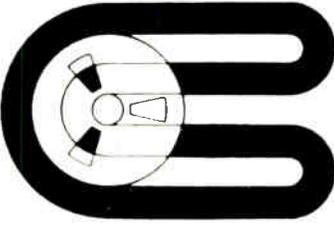
"Creative Sound Concepts" operates around a "concerted central marketing effort. Looking at future trends, we identify our market's needs. From there, our account representatives go out to actively obtain orders based on our ability to satisfy those needs," said Baxter of his company philosophy. The CSC staff consists of Daniel Baxter, designer/engineer; Spencer Herzog, creative director; Bill Kovach, visual media coordinator and Jeff Crane, marketing account representative.

In contrast to other new arrivals in Atlanta's growing recording community, Baxter does not intend to concentrate on commercial music clients as his sole source of revenue. He sees custom



**criteria's
new
east
wing**

**a master addition
to a 'sound' reputation
for recording excellence**



criteria recording studios

1755 NE 149 ST/MIAMI FL 33181 (305) 947-5611

STUDIO LOCATION INDEX

THE SOUTHEAST

All studio information listed has been supplied to the Mix by studios responding to questionnaires mailed in October, 1981. People, equipment and locations change, so please verify critical information with the studios directly. The Mix does not take responsibility for the accuracy of the information supplied to us by the studios.

No. of Tracks	Page	No. of Tracks	Page	No. of Tracks	Page
				Memphis	
				24 Ardent Recordings, Inc.	42
				8 Carlton Recording Co.	38
				16 Mastercraft Recording	40
				8 Mauw-Boggs Laboratory	39
				8 Strings & Things/Memphis	39
				8 USC Sound Enterprises	39
				Nashville	
				24 Audio Media Recorders	42
				24 Broken Door Studio	43
				24 Bullett Recording	43
				16 Cedarwood Sound	40
				24 Columbia Recording Studios	43
				8 Discovering Sounds	38
				24 Fanta Professional Services	44
				8 The Foster Home	38
				24 Glaser Sound Studios	44
				24 Great Circle Sound	44
				24 Groundstar Laboratory	44
				8 Horizon Recording Arts	38
				16 House of Gold Music	40
				8 Hummingbird Studio	38
				24 Mariner Recorders	45
				24 Mission Records	45
				24 Music Mill	45
				24 Music City Music Hall	45
				24 Oak Valley Studio	46
				24 Pollyfox 24 Track Studio	46
				24 Quadrafonic Sound Studios	46
				24 Roxy Recording Theater	46
				24 Scruggs Sound Studio	46
				16 Singleton Sound	41
				24 Sound Emporium	47
				24 The Sound Lab	47
				24 Soundshop, Inc.	48
				24 Sound Stage	48
				24 Sound Track	48
				4 The Stick Showroom	39
				24 Woodland Sound	49
				Summertown	
				8 Village Media Services	39
				SOUTH CAROLINA	
				Charleston	
				8 Recording Associates	39
				Columbia	
				8 G.E.M. Recordings	38
				Greenville	
				24 Mark Five Studios	45
				Newberry	
				8 MCP/Davisound	39
				Spartanburg	
				24 Creative Arts Studio	43
				Summerville	
				16 Track Productions	41
				West Columbia	
				16 Strawberry Jamm, Inc.	41
				VIRGINIA	
				Bristol	
				16 Tandem Recording	41
				Harrisonburg	
				16 Alive Recordings	40
				Norfolk	
				24 Live Oak Sound	45
				Richmond	
				24 Alpha Audio	42
				Roanok	
				24 Threshold Recording	48
				Springfield	
				24 Bias Recording Co.	43
				Winchester	
				8 Sounds of Winchester	39
				WEST VIRGINIA	
				Charleston	
				8 Daystarr Recording	38
				Parkersburg	
				8 Sweetsong Recording	39
				ALABAMA	
				Birmingham	
				24 The Music Place	46
				16 Polymusic Recording	41
				16 The Sound of Birmingham	41
				24 SRS Solid Rock Sound	48
				Dothan	
				24 Studio Four	48
				Lexington	
				8 Woodrich Recording	39
				Montgomery	
				16 Brigadier Sound	40
				Muscle Shoals	
				24 Wishbone Recording	49
				Smith Station	
				24 Studio 7 Recording	48
				FLORIDA	
				Coconut Grove	
				24 Bayshore Recording	42
				Deerfield Beach	
				16 Spectrum Recording	41
				Deland	
				8 Morning Sun	39
				Edgewater	
				16 Seabird	41
				Ft. Lauderdale	
				8 Soundshine Productions	39
				24 Triad Recording	48
				Largo	
				4 Wholetrack Sound	39
				Miami	
				24 Criteria Recording Co.	44
				16 Miami Sound Studio	40
				16 QL Studios	41
				Monticello	
				8 Monticello Productions	39
				North Miami	
				24 Fantasy Workshop	44
				24 Quadradiad Cinema Corp.	46
				24 Tracks, Inc.	48
				N. Miami Beach	
				24 Coconuts Recording, Inc.	44
				Orlando	
				24 Bee Jay Recording	42
				Oviedo	
				4 Ron Sound Company	39
				Panama City Beach	
				8 Creative Rediffusions	38
				8 Ocean Opry Recording	39
				Pompano Beach	
				24 Artisan Recorders	42
				16 Audio Image	40
				Sarasota	
				16 Telstar Recording	41
				St. Augustine	
				16 Hot Tracks	40
				Sunrise	
				8 FXL Sound Studio	38
				Tallahassee	
				16 Lake Bradford Studios	40
				16 Sweetbay Recording	41
				Tampa	
				24 Hayes Recording	44
				16 Metamorphosis Studio	40
				24 Morrisound	45
				8 Progressive Music	39
				West Palm Beach	
				16 Jalex Recordings	40
				GEORGIA	
				Alpharette	
				16 Monarch Sound Co.	41
				Atlanta	
				24 A&B Sound Studio	42
				24 Cheshire Sound	43
				24 Doppler Studios	44
				24 Master Sound Studio	45
				24 Eddy Offord Studios	46
				16 Signal Sound Studio	41
				24 Songbird Studios	46
				24 Southern Tracks	48
				16 Twelve Oaks Recording	41
				24 Webb IV Recording	48
				Carrollton	
				8 Coley Recording	38
				Chamblee	
				4 Sound Technical Service	39
				Columbus	
				16 Merit Recording Co.	40
				Doraville	
				24 Studio One	48
				Fort Oglethorpe	
				24 The Sound Room, Inc.	48
				Macon	
				24 Capricorn Studios	43
				Rome	
				16 Willow Creek Studios	41
				Savannah	
				8 Ragdoll Recording	39
				Statesboro	
				8 Southwind Recording	39
				Stockbridge	
				8 Real to Reel	39
				KENTUCKY	
				Frankfort	
				8 Kentucky Dept. of Arts	38
				Georgetown	
				8 Triple Tree Music	39
				Lexington	
				16 Track-16 Studios	41
				Louisville	
				24 Allen-Martin Audio	42
				16 Derbytown Sound	40
				8 Golddust Productions	38
				8 Sunshine Sound Recording	39
				Nebo	
				8 Trusty Tuneshop	39
				Paducah	
				4 Lost River Studio	38
				LOUISIANA	
				Denham Springs	
				16 Little Woods Recording	40
				Lake Charles	
				16 Goldband Recording	40
				MISSISSIPPI	
				Jackson	
				16 The Mississippi Recording Co.	41
				NORTH CAROLINA	
				Bailey	
				24 Mega Sound Studios	45
				Charlotte	
				8 Audio, Inc.	38
				16 Lamon Sound Studios	40
				24 Reflection Sound Studios	46
				Granite Falls	
				16 Fantasy Sound	40
				Raleigh	
				16 Soundtrax, Inc.	41
				TENNESSEE	
				Antioch	
				4 Shoestrings Productions	39
				Ashland	
				24 Bull Run/Nashville	43
				Clarksville	
				8 Catfish Bay Sound	38
				Cleveland	
				24 Majestic Sound Studio	45
				Franklin	
				24 The Bennett House	42
				24 The Castle Studio	43
				8 Grassland Sound Studios	38
				Hendersonville	
				16 "A Summer Place"	41
				Kingsport	
				24 Tri State Recording	48
				Madison	
				24 Cinderella Sound	44
				24 Hilltop Studio	45
				Maryville	
				4 Stonebridge	39

Itam 1610

16-Track One-Inch Tape Recorder.

Here's the high-quality, low-cost alternative to two-inch recorders, the one-inch 16-track ITAM 1610. Ideal for studio or location work, it's the most compact 16-track available.



Yet specs are fully professional, with no semi-pro compromises. 7½, 15 and 30 i.p.s. speeds. Also available as an 8-track. Our customers think so much of the Itam 1610, we not only rent it...by popular request, we sell it too.

Audioforce INC.
THE RENTAL PROFESSIONALS

(212) 741-0919
IN NEW YORK STATE

We're America's Recorder Rental Headquarters.

Audioforce has the tape recorder you want to rent. We feature a full line of AMPEX recorders—24, 16, 4, 2 and 1 track. Are you ready for digital? We're ready for you with the fantastic MITSUBISHI X-80. If you're looking to rent a compact, economical multi-track, our ITAM 1610 is the answer. All available for rent by the day, week or month. We ship anywhere in the world (our TASCAM 80-8 just returned from Africa, for example.) And most important, every tape machine is tested, aligned and biased before every rental. Another reason we're the rental professionals. For your next recorder rental, depend on Audioforce.

Audioforce INC.
THE RENTAL PROFESSIONALS

(800) 847-4123
TOLL-FREE OUTSIDE N.Y.

MITSUBISHI
DIGITAL AUDIO SYSTEMS

X-80 P.C.M. Digital Recorder.

Now Mitsubishi and Audioforce make digital audio recording practical and affordable. Rent our X-80 two-track digital mastering recorder. It's the



only digital that lets you edit with a razor blade, on a single deck. Incredible specs include dynamic range greater than 90dB...and the 20th generation sounds just as great as the first. You get complete service and support from Audioforce, of course. Call for full details.

Audioforce INC.
THE RENTAL PROFESSIONALS

38 West 26th Street
NEW YORK, N.Y. 10010

You & Our Shadow (We Could Make Beautiful Time Code Together.)

Our BTX Shadow system is the perfect answer whenever you want to lock-up two recorders—audio, video or both. As a positive sync lock between your one-inch VTR and a multitrack audio recorder, for example. Or for off-line film scoring via a ¾" videocassette workprint. And what the Shadow knows...Audioforce knows. We've got the know-how to interface our equipment with yours, so we'll make sure that the system works the way you want it to work. Audioforce also rents BTX SMPTE generators and readers. Inquire about our special value Shadow/Multi-track combo packages.

Audioforce INC.
THE RENTAL PROFESSIONALS

(212) 741-0919
IN NEW YORK STATE

Going On Location? Quick! Rent Our Location Mixer.

We wanted to offer you the ideal 8 X 2 mixer for location work... so we designed our own. The location mixer has it all—8 mic and line inputs, phantom and T-power, full EQ, solo and P.F.L., 2 aux. outputs, AC and battery operation, all in a rugged 16" X 24" X 4½" self-contained flight case. First-day rental is just \$45. We also sell the location mixer for just \$1890. There's a 16-input location mixer, too.



Audioforce INC.
THE RENTAL PROFESSIONALS

(800) 847-4123
TOLL-FREE OUTSIDE N.Y.

The Audioforce Commitment.

The equipment you need, the service you deserve, and people that care. That's our commitment to you. At Audioforce, you'll find the latest equipment in all categories: Mics, tape machines, reverbs and special effects, audio/video interface and SMPTE gear, mixers and more. We'll work with you to put together the equipment package you need to get the results you want. And when it comes to delivery and service, we'll stop at nothing to come through for you. Even at the last minute. You'll find our rates reasonable and our multiday rental discounts unbeatable. Call Lucy Vargas for the Audioforce rate card today.

Audioforce INC.
THE RENTAL PROFESSIONALS

38 West 26th Street
NEW YORK, N.Y. 10010

4 & 8 TRACK The Southeast

•• **AUDIO INC.**
820 E. Blvd., Charlotte, N.C. 28203
(704) 376-3818
Owner: Frank Rogers, Jay Howard
Studio Manager: Frank Rogers, Jay Howard

•• **CARLTON RECORDING CO.**
also **REMOTE RECORDING**
4229 Elvis Presley, Memphis, TN 38116
(901) 358-4255
Owner: Kelly Walters & Gary Carlton
Studio Manager: Gary Carlton

•• **CATFISH BAY SOUND STUDIOS**
also **REMOTE RECORDING**
133 Franklin St., Clarksville, TN 37040
(615) 552-2769

Owner: Charles Emery.
Studio Manager: Chuck Emery
Engineers: Main studio is 27' x 16' x 12'; isolation booth; amp booths
Dimensions of Control Room: 17' x 15' x 10'
Tape Recorders: Otari MX 5050 B SHD 8 track; Otari MX 5050 B 2 track; TEAC X7 1/4 track, Sony TC K158 cassette
Mixing Consoles: Sound Workshop 1280 B-8EO, 12 in x 8 out, Tascam Model 3, 8 in x 4 out
Monitor Amplifiers: BGW 250D, Sony TA 3200
Monitor Speakers: UREI 811, Auratone 5C, Sony SSU-1050, Bolivar 64.
Echo, Reverb, and Delay Systems: Sound Workshop 262 reverb, DeltaLab Acousticcomputer tape delay.
Other Outboard Equipment: dbx 163 limiters, dbx 155 noise reduction, Quad Eight noise gates
Microphones: Sennheiser MD-421, AKG D 1000, C-501; Shure SM-57, SM-58, P2M, Beyers M-500; and Valley Audio direct boxes.
Instruments Available: Fender Champ, Kimball studio upright piano, Fender Strat, Fender Telecaster, acoustic guitar, resonator guitar, vintage Fender Deluxe, Fender Bandmaster, Fender Bassman, and Fender Super Reverb, Univox Univibe, original Vox "Clyde McCoy" wah-wah pedal, Hammond B-3 organ, in tone cabinet and Music Man amps, Fender Champ.
Rates: 8 track \$35/hr, 2 track and mono: \$20/hr, tape duplication \$15/hr Remote recording rates on request 8 track block booking rates 5-10 hours \$30/hr, 10 or more hours \$25/hr. Very reasonable single & album packages.

•• **COLEY RECORDING STUDIO**
10 Harris Street, Carrollton, GA 30117
(404) 832-0616
Owner: Phil Coley
Studio Manager: Phil Coley
Extras: Coley Recording Studio operates in Laid Back Carrollton Georgia 45 minutes west of Atlanta. We use boys from out here that play sho-nuff in the groove Audreys Cate and Blackjack Mountain are nearby
Direction: We've written, arranged and recorded music for national and local TV and radio. We have the biggest song demo business in the south. We also produce backing tracks, video soundtracks and there are package prices for custom albums and 45's. Our staff are Berkeley Alumni who can play "Wipe Out",

"Smoke On The Water" and "Proud Mary." We are honest and we work hard for our customers.

•• **CREATIVE REDIFFUSIONS AUDIO & VIDEO—PMB PRODUCTIONS**
7019 Big Daddy Drive, Panama City Beach, FL 32407
Owner: Paul Bailey
Studio Manager: Mike Bailey

•• **DAYSTARR RECORDING**
also **REMOTE RECORDING**
P.O. Box 2661, Charleston, WV 25330
(304) 768-3213
Owner: Marcel Lazare & Stephen Elkins
Studio Manager: "Ruby Jean"

•• **DISCOVERING SOUNDS**
1902 Marcella Drive, Nashville, TN 37217
(615) 367-4432
Owner: Jim W. Rice
Studio Manager: Jim W. Rice

•• **THE FOSTER HOME**
20 Music Square West, Nashville, TN 37202
(615) 242-1152
Owner: Jerry Foster Enterprises
Studio Manager: Jay Foster

•• **FXL SOUND STUDIOS, INC.**
7766 N.W. 44 Street, Sunrise, FL 33321
(305) 741-7766
Owner: Frank X Lucontio
Studio Manager: Frank X Lucontio

•• **G.E.M. RECORDINGS**
also **REMOTE RECORDING**
307 Southwood Drive, Columbia, S.C. 29205
(803) 799-8235
Owner: John V Epps/G R (Dick) Goodwin
Studio Manager: John Epps

•• **GOLDDUST PRODUCTIONS**
7601 Colson Drive, Louisville, KY 40220
(502) 499-0927
Owner: Bill Watkins
Studio Manager: Bill Watkins
Engineers: Bill Watkins, Mike Franklin, Steve Hostad
Dimensions of Studio: 270 sq. ft.
Dimensions of Control Room: 80 sq. ft.
Tape Recorders: Tascam 80-8 with DX-8 noise reduction 8 track; Tascam 25 2 2 track; Kenwood KX910 cassette
Mixing Consoles: Sound Workshop Series 30, 16 in x 16 out
Monitor Amplifiers: Southwest Technical Tigersaurus, Dynaco ST-80
Monitor Speakers: JBL 4311
Echo, Reverb, and Delay Systems: MICMIX XL 205
Other Outboard Equipment: dbx 162 stereo comp/limiter, (2)

dbx 160 mono comp/limiter; Soundcraftsmen RP 2215 octave EQ; Soundcraftsmen TG3044 1/3 octave EQ; 2 channels stereo flanging.

Microphones: Shure, AKG, TEAC, Electro-Voice
Instruments Available: \$30/hr studio, \$25/hr mixdown. Please call for special rates for block booking and special projects.

•• **GRASSLAND SOUND STUDIOS**
Route 3, Millboro Rd., Franklin, TN 37064
(615) 790-9107, 242-1152
Owner: Clark and Susan Smith
Studio Manager: Clark and Susan Smith

•• **HORIZON RECORDING ARTS STUDIO**
170 Kenner Ave., Nashville, TN 37205
(615) 297-6210
Owner: Richard Owens
Studio Manager: Richard Owens
Engineers: Michael Bridges, Richard Owens
Dimensions of Studios: 20' x 25' main studio, 25' x 25' live studio with piano; 6' x 8' drum booth, 5' x 5' vocal booth
Dimensions of Control Room: 8' x 20'
Tape Recorders: Tascam 80-8 8 track, Sony TC-854-4 4 track; Otari 5050B 2 track; TEAC A3300S 2 track; Sony and Nakamichi cassette decks
Mixing Consoles: Tangent Series 4, 20 in x 8 out, modified for 7 send busses, A and B cue mix, independent monitor mix, and features transformerless mic preamp and hi slew opamps, (13ms).
Monitor Amplifiers: Phase Linear 700 (350W/ch), Sony TA 3200F (100W/ch), Marantz 1020 (cue amps)
Monitor Speakers: JBL L100 (room analyzed and EQ'd); Studio: JBL custom 200 design, and Advents, (mixdown: Auratones).
Echo, Reverb, and Delay Systems: Ursa Major SST 282 Space Station (digital reverb).
Other Outboard Equipment: 12 channel dbx noise reduction, 4 channels each: Gain Brain II limiters, Maxi-Q parametric EQ's, Kepex II expanders; 2 channels each: TEAC and Soundcraftsmen graphic EQ, Phase Linear autocorrelators
Microphones: P2M's; Sennheiser 421's; Sony ECM-33P's, ECM-22P's; Shure SM-57's.
Instruments Available: Fisher grand piano, Camco drum set, Mellotron, Yamaha CS60-8 voice, MiniMoog, Oberheim, Martin, Epiphone and Garcia guitars, Ludwig/Premier tympani, Lyon & Healy harp; orchestral bells; celeste, mandolin
Rates: Introduction rates: 8 track \$20/hr, 4 track \$15/hr

• **HUMMINGBIRD STUDIO**
50 Music Square West, Suite 406, Nashville, TN 37203
(615) 329-2100
Owner: Bob Farnsworth
Studio Manager: Lynn Fuston

•• **KENTUCKY DEPARTMENT OF THE ARTS AUDIO-VISUAL PRODUCTIONS**
(formerly KY Dept. of Public Information)
also **REMOTE RECORDING**
38 Fountain Place, (formerly RM 39, New Capitol Annex), Frankfort, KY 40601
(502) 564-8930
Owner: Kentucky Department of the Arts
Studio Manager: Ray Bowman (formerly Dick Brown)

• **LOST RIVER RECORDING STUDIO**
631 N. 9th St., Paducah, KY 42001
(502) 444-7594
Owner: Clyde Wood
Studio Manager: Andy Wood
Engineers: Laddie Wood
Dimensions of Studios: Studio A: 14' x 12', Studio B: 12' x 7'.
Dimensions of Control Room: 9' x 12'.
Tape Recorders: TEAC 3340S 4 track, TEAC 3300S 2 track; TEAC A-170 cassette; Technics M270X cassette, Panasonic RS-808 8 track cartridge
Mixing Consoles: Tapco (4 mixers in 6' console) 6000 R series, 24 in x 4 out; TEAC/Tascam Model 1, TEAC meter bridge MB-20
Monitor Amplifiers: Crown D-60
Monitor Speakers: Custom built, also cubes.
Other Outboard Equipment: dbx 155, (4 track), dbx 152 (2 track); Dolby, (8 track tapes); Tapco 2200 graphic equalizer; TEAC PB-64 patch bay, (6) AKG K-140 headphones.
Microphones: Audio-Technica AT-813, Shure 585, Electro-Voice DS-35, Barcus-Berry 1355 audio transducer.
Instruments Available: Baldwin acrosone piano, Fender-Rhodes piano-bass, synthesizer, electric piano, small organ, Leslie tone cabinet, Fender Bandmaster amp, Fender Bassman amp, two Sunn amps, 6 & 12 string Alvarez acoustic guitars, bass guitar, Gibson classic guitar, steel guitar, violin, conga drums, percussion. (All instruments in studio)
Rates: Call or write for prices.
Extras: Free Coffee and tea
Direction: We also sell musical equipment. In business same location 7 years. We plan to continue growing as a studio and to try to make our customers satisfied. We plan to expand soon

•• MAUW-BOGGS LABORATORY
667-669 Hawthorne St., Memphis, TN 38107
(901) 278-5003
Owner: Bobby Davis, Vikki Davis, G T Davis
Studio Manager: Bobby, Vikki, G T Davis.

•• MCP/DAVISOUND
also REMOTE RECORDING
P.O. Box 521, Newberry, S.C. 29108
(803) 276-0639
Owner: Mr. Hayne Davis
Studio Manager: Polly Davis

•• MONTICELLO PRODUCTIONS
P.O. Box 80, Monticello, FL 32344
(904) 997-2573
Owner: Scott S Carswell
Studio Manager: Ioe Cuda & Mike Garrison.

•• MORNING SUN RECORDING
also REMOTE RECORDING
416 N. Orange Ave., Deland, FL 32720
Mailing: P.O. Box 935, Deland, FL 32720
(904) 736-0300
Owner: Greg and Nancy Rike
Studio Manager: Greg and Nancy Rike

•• OCEAN OPRY RECORDING STUDIO
8400 W. Hwy 98, Panama City Beach, FL 32407
(904) 234-5464
Owner: Wayne Rader
Studio Manager: Dennis Rader

•• PROGRESSIVE MUSIC STUDIOS
also REMOTE RECORDING
124 Adalia Ave., Tampa, FL 33606
(813) 251-8093
Owner: Ken Veenstra II
Studio Manager: Ken Veenstra II

•• RAGDOLL RECORDING STUDIO
205A Television Circle, Savannah, GA 31406
(912) 927-1761
Owner: Rocky Evans
Studio Manager: Rocky Evans

•• REAL TO REEL
4911 N. Henry Blvd., Stockbridge, (Atlanta), GA 30281
(404) 474-4776
Owner: Harold Turpin, Bill Turpin
Studio Manager: Scott Long, Asst Mgr Mark Robinson

•• RECORDING ASSOCIATES STUDIOS
also REMOTE RECORDING
St. Andrews Center, 1045 Savannah Highway,
Charleston, S.C. 29407
(803) 556-5770
Owner: Michael J Harbin, Ronald E Clifton
Studio Manager: Ronald E Clifton

•• RON SOUND CO.
RTI Box 357A, Oviedo, FL 32765
(305) 349-5832
Owner: Ron Schrader
Studio Manager: Ron Schrader

•• SHOESTRING PRODUCTIONS
Box 32, Rice Road, Antioch, TN 37013
(615) 361-4322
Owner: Bruce Bossert
Studio Manager: Bruce Bossert

•• SOUND TECHNICAL SERVICE
also REMOTE RECORDING
De Kalb/Peachtree Airport, Bldg. 34A,
Chamblee, GA 30341
(404) 458-1679
Owner: Lou Frisch, Hamilton Underwood
Studio Manager: Lou Frisch, Hamilton Underwood

•• SOUNDS OF WINCHESTER
also REMOTE RECORDING
P.O. Box 574, 314 Lanny Dr., Winchester, VA 22601
(703) 667-9379
Owner: Sounds of Winchester
Studio Manager: Jim McCoy

4&8 TRACK The Southeast

•• SOUNDSHINE PRODUCTIONS INC.
723 West Sunrise Blvd., Ft. Lauderdale, FL 33311
(305) 463-9882
Owner: Tom Graefe
Studio Manager: Tom Palopoli
Engineers: Tom Palopoli, Tom Graefe, Cary Altschuler
Dimensions of Studios: 32 x 15' 6" x 14' 8"
Dimensions of Control Room: 15' 6" x 14' x 14' 8"
Tape Recorders: Scully 284-8 8 track, Crown SX 722 2 track,
Ampex AG 440B 2 track, TEAC 3340S 4 track, TEAC &
Optonica cassette decks
Mixing Consoles: Phillips & Graefe custom, 20 in x 16 out
Monitor Amplifiers: Crown DC 300A, Crown D 60 AB-410,
Interracial Systems headphone cue
Monitor Speakers: Custom design IBL, JBL 4311B, Tiny Red
Echo, Reverb, and Delay Systems: DellaLab Acoustic Computer
DL 2, Quad 8 RV 10 (reverb), custom design reverb
Other Outboard Equipment: dbx noise reduction (12 channels),
dbx 160 compressors, Pye limiters, Dynamite's by Valley People,
Audioarts parametres, Spectro Acoustic graphic EQ, Della
Graph EQ
Microphones: Neumann U 87, KM 88, Sennheiser 441 421s,
Shure SM 81, SM-57, SM 76, AKG 451s, EV DS .35, shotgun
Beyer M-500s
Instruments Available: Yamaha baby grand, MiniMooq
clavinet, Fender Sutraser Rhodes Slingerland drums w/zildjan
cymbals, various vintage Fender amps, Ludwig timpani, Roto
toms, noisemakers, LP congas
Rates: 1 10 hour session \$40/hr over 10 hours \$35/hr, 2 track
time \$25 hr

•• SOUTHWIND RECORDING STUDIO
Route 9, Box 239, Statesboro, GA 30458
Owner: Joiner Audio Video Corp
Studio Manager: David W Joiner

•• THE STICK® SHOWROOM STUDIO
1014-17th Ave. S., Nashville, TN 37212
(615) 327-4981
Owner: SYNAPSE!
Studio Manager: Andy Widders Ellis

•• STONEBRIDGE RECORDING
Rt. 15, Box 54, Maryville, TN 37801
(615) 983-7448
Owner: Michael Ishibashi
Studio Manager: Michael Ishibashi

•• STRINGS & THINGS IN MEMPHIS, INC.
1492 Union Ave., Memphis, TN 38104
(901) 278-0500
Owner: Charlie Lawing, Chris Lovell
Studio Manager: Jon Hornyak

•• SUNSHINE SOUND RECORDING STUDIO
also REMOTE RECORDING
2826 Whitlock St., Louisville, KY 40213
(502) 968-8757
Owner: Carl & Debbie Sandler
Studio Manager: Carl Sandler

•• SWEETSONG RECORDING
also REMOTE RECORDING
P.O. Box 2041, Parkersburg, WV 26102
(304) 489-2911
Owner: Roger Hoover
Studio Manager: Randy Moellindick

•• TRIPLE TREE MUSIC (Demo Studio)
345 North Court Street, Georgetown, KY 40324
(502) 863-1533
Owner: Elmer L Jones
Studio Manager: Norman Mays

•• TRUSTY TUNESHOP
Route 1, Box 100, Nebo, KY 42441
(502) 249-3194
Owner: Elsie Trusty Childers
Studio Manager: Elsie Trusty Childers

•• USC SOUND ENTERPRISES
also REMOTE RECORDING
190 Waynoka Lane, P.O. Box 11211, Memphis, TN 38111
(901) 458-0275
Owner: Rodney Peppenhorst
Studio Manager: Rodney Peppenhorst

•• VILLAGE MEDIA SERVICES
156 Drakes Lane, Summertown, TN 38483
(615) 964-2286 day, (615) 964-3574 night.
Owner: The Farm
Studio Manager: Philip Schweitzer

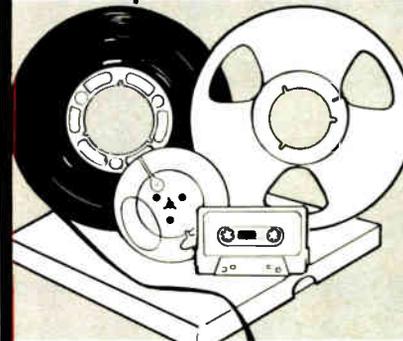
•• WHOLETRACK SOUND RECORDING STUDIO
also REMOTE RECORDING
514-1st Ave. S.W., Largo, FL 33540
(813) 584-7648
Owner: Mick Thompson & Bill Friday

•• WOODRICH RECORDING STUDIO
P.O. Box 38, Geo. Wallace Park Dr., Lexington, AL 35648
(205) 247-3983
Owner: Woody Richardson
Studio Manager: Woody Richardson

SUBSCRIBE to the MIX

The Recording Industry Magazine.
See page 74 for a subscribers
coupon and use the handy self
mailer. Do it today!

Audio Tape for professionals



REEL TO REEL TAPE
Ampex, 3M. All grades.
On reels or hubs.

CASSETTES, C-10—C-90
With Agfa, TDK tape.

LEADER & SPLICING TAPE
EMPTY REELS & BOXES

All widths, sizes.

Competitive!
Shipped from Stock!

Ask for our recording supplies catalog.

Polyline
Corp. 312/298-5300
1233 Rand Rd. • Des Plaines, IL 60016

15

16 TRACK The Southeast

••• **ALIVE RECORDINGS**
also **REMOTE RECORDING**
1251 Edom Rd., Harrisonburg, VA 22801
(703) 434-6703
Owner: Mennonite Board of Missions.
Studio Manager: Abe Rittenhouse.

••• **AUDIO IMAGE**
3685 N. Federal Hwy, Pompano Beach, FL 33064
(305) 943-5590
Owner: Rob Henion.
Studio Manager: Rob Henion.
Engineers: Mike Hoffmann, Rob Henion.
Dimensions of Studio: 24' x 20' plus string/horn ensemble room and drum room.
Dimensions of Control Room: 20' x 16'.
Tape Recorders: Tascam 85-16 Autolocated 16 track, Tascam 80-8 8 track; (4) 2 track mastering decks
Mixing Consoles: Tascam Model 16, 24 outputs.
Monitor Amplifiers: Stacked SAE's.
Monitor Speakers: JBL 4311's, Auratones, EAW MS-200's.
Echo, Reverb, and Delay Systems: Ursa Major Space Station, DeltaLab Acoustcomputer, DeltaLab DL-1, MICMIX.
Other Outboard Equipment: Loft analog delay, MXR flangers, pitch transposers, numerous digital delays, parametric and graphic equalizers, Symetrx compressor/limiters, Technics turntable.
Microphones: Sennheiser (all models); AKG; Audio-Technica (all models).

Instruments Available: Rhodes 88, Baldwin studio piano, Orchestral, organ, synthesizer, full drum set-up, acoustic piano.
Rates: 8 track: \$40/hr; 16 track: \$65/hr.

••• **BRIGADIER SOUND STUDIOS**
also **REMOTE RECORDING**
1119 Bell Street, Montgomery, AL 36104
(205) 834-6881 or 269-5957
Owner: Harold and Jayonn Bearden.
Studio Manager: Jayonn Bearden

••• **CEDARWOOD SOUND STUDIO**
39 Music Sq. East, Nashville, TN 37203
(615) 255-6535
Owner: Cedarwood Publishing Company, Inc.
Studio Manager: Clarke Schleicher.

••• **DERBYTOWN SOUND STUDIOS**
5900 Outer Loop, Louisville, KY 40219
(502) 968-2320
Owner: John Wesley
Studio Manager: John Wesley

••• **FANTASY SOUND STUDIOS**
also **REMOTE RECORDING**
14 Woods Dr., Granite Falls, N.C. 28630
(704) 396-1188
Owner: Glen F. Hefner.
Studio Manager: Glen F. Hefner

••• **GOLDBAND RECORDING STUDIO**
313 Church St., Lake Charles, LA 70601
(318) 439-8839
Owner: Eddie Shuler
Studio Manager: Jeff Le June.

••• **HOT TRACKS, INC.**
A.I.A. South, St. Augustine, FL 32084
Mailing address: P.O. Box 1281, St. Augustine, FL 32084
(904) 471-0506
Owner: Jim DeVito
Studio Manager: Jim DeVito
Extras: Hot Tracks studio is a fully equipped MCI & Neotek studio. Located in the oldest city in the U.S., directly across from the Atlantic ocean, Hot Tracks limits its studio time to a few select projects in order to achieve perfection.
Direction: Our professional engineers, Jim DeVito & Bill Parker are dedicated to developing a perfect product the way the client sees fit. By the time of this printing, we plan to be 24 track. Rates & session appointments, call (904) 471-0506.

••• **HOUSE OF GOLD MUSIC, INC.**
1614-16th Ave. S., Nashville, TN 37212
(615) 383-4667
Owner: House of Gold Music, Inc.

••• **JALEX RECORDINGS**
also **REMOTE RECORDING**
319 Clematis St., West Palm Beach, FL 33401
(305) 832-1538
Owner: Jon A. Lind
Studio Manager: Susan Elliott.
Engineers: Bill Harris, Jon A. Lind.
Dimensions of Studio: 38' x 17' plus vocal booth
Dimensions of Control Room: 17' x 14'.
Tape Recorders: Ampex MM1100 16 track; Ampex AG 440B 8 track; Ampex AG 440 4 track; Ampex AG440 2 track; MCI JH 110B 2 track; Ampex 351-2 2 track; Nagra SD 2 track; Nagra 4.2 mono, several other 1/4" machines.
Mixing Consoles: MCI 416 w/5534's, 24 in x 24 out.
Monitor Amplifiers: AB Systems, Peavey, Crown.
Monitor Speakers: JBL, Auratones.
Echo, Reverb, and Delay Systems: MICMIX XL 305.
Other Outboard Equipment: Graphics, limiters, noise reduction, DDL, var-speed, etc.
Microphones: Neumann U-47's (tube), U-87's, KM-84's; Sony C-500, C-37P's, ECM-22P's, ECM 50P; Shure SM-57's, SM-76's; Sennheiser MKH-405, MD-421's, MD-21; AKG C-412, D-224E, D-119ES; E-V 649B, 635A, RE-55; Beyers M-500, PZM's; The Co. direct boxes.
Instruments Available: Steinway grand, Hammond B-3, Rhodes piano, drums, congas, manmba.
Rates: \$20 to \$100 per hour. Block time available. Call: (305) 832-1538.

••• **LAKE BRADFORD STUDIOS**
2195 Lake Bradford Road, Tallahassee, FL 32303
(904) 576-4741
Owner: Charles Roberts, Dennis Roberts.
Studio Manager: Roger Salandi.

••• **LAMON SOUND STUDIO**
also **REMOTE RECORDING**
6870 A Newell Hickory Grove Rd., Charlotte, N.C. 28212
(704) 537-0133
Owner: Dwight L. Moody.
Studio Manager: David B. Moody.
Engineers: David Floyd, David Moody, Jame Hoover.
Dimensions of Studios: A: 20' x 30' (also a fully sealed, 8' x 10', comfortable isolation booth, and a special, very live, percussion annex); B: 10' x 8'.
Dimensions of Control Room: 18' x 20'.
Tape Recorders: MCI JH 100 w/Autolocator 16 track; Ampex AG-440B 2 track; Technics SL-1500LIS 2 track; TEAC X-7 2 track; Kenwood KX-1030 cassette.
Mixing Consoles: MCI JH 400 (light meters), 24 in x 24 out; console has been extensively modified with reciprocal mid-band EQ, channel mutes, mike padding, individual buss/tape return solos, large producer's desk, stop clock.
Monitor Amplifiers: Yamaha P.200.
Monitor Speakers: Electro-Voice Sentry V, Auratone 5C, also Electro-Voice Sentry V in studio.
Echo, Reverb, and Delay Systems: AKG BX10, Eventide Harmonizer & keyboard.
Other Outboard Equipment: (2) UREI 1176LN, Orban 622B.
Microphones: (4) AKG C-414, (2) C-451 w/accessories; (2) E-V RE-20's, (4) 635-A's; (2) Shure SM-81's, 5B (1928).
Instruments Available: Yamaha 6' conservatory grand, Leedy/Ludwig drum kit, many other instruments available on loan or rent from related company.
Rates: \$60/hr base, with special record packages and block time packages always available. 2" tape may be rented or purchased.
Direction: Lamon Sound Studios was opened by professional musicians for use by professional musicians. Experienced engineering, competent production assistance, truly top grade equipment, and a comfortable environment are available at about half the price of competitive studios in Charlotte. Our clients are our only sales people.

••• **LITTLE WOODS RECORDING**
Rt. 2, Box 356, Denham Springs, LA 70726
(504) 664-3746
Owner: Lyle W. Simms.
Studio Manager: Will Simms.

••• **MASTERCRAFT RECORDING CORP.**
also **REMOTE RECORDING**
437 N. Cleveland St., Memphis, TN 38104
(901) 274-2100
Owner: James Howard Craft, Sr.
Studio Manager: James Craft, Jr.

••• **MERIT RECORDING CO.**
3475 Buena Vista Rd., Columbus, GA 31906
(404) 689-9629
Owner: Thomas W. Merritt.
Studio Manager: Bruce Eddings

••• **METAMORPHOSIS RECORDING STUDIO**
7120 N. Florida Ave., Tampa, FL 33604
(813) 238-6257
Owner: Mary Ellen Erbaugh, Martha Gillmore, Gail Smith.
Studio Manager: Mary Ellen Erbaugh.

••• **MIAMI SOUND STUDIO**
2819 N.W. 7 Ave., Miami, FL 33127
(305) 635-4890, 4891
Owner: Carlos D. Granados, Jr.
Studio Manager: Carlos D. Granados, Jr.
Engineers: Carlos D. Granados, Jr., Juan G. Covas, Clide Pender, Paul Khoun.
Dimensions of Studio: 17' 6" x 13' 8" x 28'.
Dimensions of Control Rooms: 17' x 10' x 15'.
Tape Recorders: MCI JH16 16 track; Ampex 440-B 2 track; Studer/Revox 2 track; Scully 2-4 track.
Mixing Consoles: NEVE 8028 24 in x 16-24 out.
Monitor Amplifiers: McIntosh 2300, 2105, 255.
Monitor Speakers: JBL 4343 (Gauss), JBL 4311, Auratone, SC-Tannoy.
Monitor Amplifiers: McIntosh 2300, 2105, 255.
Monitor Speakers: JBL 4343 (Gauss), JBL 4311, Auratone, SC-Tannoy.
Echo, Reverb, and Delay Systems: Echo delay tape, 2 EMT 140 echo chambers.
Other Outboard Equipment: Eventide Harmonizer, Scamp Rack, UREI Teletronix, LA2A limiters, LA3A limiters, Pultec equalizers, compressors, NEVE limiters, vocal doubler, all effects possible, any outboard equipment upon request.
Microphones: Neumann U-87's, U-67's, KM-84's; AKG 451; E-V RE-20; Sennheiser; Shure 57; Sony C-37P; RCA 77-DX.
Instruments Available: Yamaha grand piano, Fender Rhodes, Roland synthesizer, chimes, vibes, congas, timbales, Synare, Rhythm Box, Harmonizer, Slingerland drums, Hammond B3.
Rates: Rates upon request, including block time.
Extras: Complete Scully mastering room, stampers, record pressing and shipping; complete art dept for jacket, label and logo

design. In-house producers, arrangers and musicians. Colombian coffee, Latin food and lounge, with color TV. Also drum booth. Totally newly furnished lobby w/relaxation room and stereo system.

Direction: Studio Philosophy: Simply that our engineers strive to treat every recording as if it were their own. Aspiration: To be categorized as a hit-making, quality studio. Logo: "We've got the sound you want"

**Miami Sound Studios
Miami, FL**



••• THE MISSISSIPPI RECORDING COMPANY

107 N. State St., Jackson, MS 39205

(601) 354-0857

Owner: Jerry Puckett.

Studio Manager: Lane Dinkins.

••• MONARCH SOUND INC.

7 Roswell St., P.O. Box 228, Alpharetta, GA 30201-0228

(404) 475-4533

Owner: Phil Benton.

Studio Manager: Larry Turner.

Direction: Monarch Sound Inc. is a 16 track facility 15 minutes north of Atlanta, GA, in Alpharetta, which caters primarily to record oriented clientele, and in-house production. The studio features Ampex 1100, 440B 4/2 track machines, Electro-dyne console, video monitoring/recording (1/2") and a wide variety of monitors, outboard equipment and microphones. The environment at Monarch is unconventional acoustically with emphasis towards live and natural sound. Rates are \$60/hr, \$35/hr for 4 or 2 track. Special rates for special situations. For additional information and booking contact Phil Benton, c/o Monarch Sound Inc., 7 Roswell St., P.O. Box 228, Alpharetta, GA 30201-0228. Phone: (404) 475-4533.

••• POLYMUSIC RECORDING STUDIOS INC.

also REMOTE RECORDING

225 Oxmoor Circle, #812, Birmingham, AL 35209

(205) 942-3222

Owner: Daniel E. Whiteside.

Studio Manager: Michael Panepento, Daniel Whiteside.

••• QL STUDIOS

also REMOTE RECORDING

3080 SW 38th Court, Miami, FL 33146

Owner: Rob Burr.

Studio Manager: Rod Ball.

Engineers: Rob Burr, Chief Engineer; Gary Davids.

Dimensions of Studio: A: 13' x 28' x 10'; B: 15' x 32' x 10'; C: 33' x 34' x 20'

Dimensions of Control Rooms: Mobile truck.

Tape Recorders: New Generation Tascam 85-16 1" 16 track;

Orlan 5050 1/2 track; Technics M-85 MKII metal cassette deck.

Mixing Consoles: Soundcraft (customized) Series II 16 in x 16.

Monitor Speakers: BGW 250

Monitor Speakers: JBL 4313, Auratones Super C, ADS 800, others available.

Other Outboard Equipment: Compressor/limiters, Gain Brain, Kepex, etc. Any outboard equipment is available.

Microphones: Neumann; Sennheiser, Sony, AKG, Shure, E-V, any add'l mics on request. Phantom powered active direct boxes.

Instruments Available: Yamaha electric grand, Rhodes, clavinet, B-3 Leslie, Prophet 5, Moogs, ARP's, steel drums, marimbas (bamboo), assorted percussives, guitar amps and pedals, drums, etc.

Rates: On location \$750 per day; \$100/hr over 8 hrs; in studio \$75/hr 4 hr min.

Extras: Complete rehearsal/recording complex. Award winning

16 TRACK

The Southeast

rhythm section available, 3/4 and 1" video tape production with 16 track SMPTE lock-up in house or on location. Comfortable lounge with TV, phone, mini-kitchen. We can arrange lodging and travel accommodations for out-of-town clients.

••• SEABIRD

also REMOTE RECORDING

509 N. Ridgewood, Edgewater, FL 32032

1-800-521-3546

Owner: Conti Organization.

Studio Manager: Dick Conti.

••• SIGNAL SOUND STUDIO

2310 Marietta Blvd., STE. D, Atlanta, GA 30318

(404) 355-0909

Studio Manager: Dick Roberts.

Engineers: Dick Roberts—staff, Maintenance Engineering.

Trackside Engineering, Les Duncan.

Dimensions of Studio: 25' x 40' x 14'

Dimensions of Control Room: 18' x 18' x 14'

Tape Recorders: MCI JH-10 16 track; TEAC 3340 4 track;

Ampex ATR-700 2 track

Mixing Consoles: Trackside Engineering Proto, 16 in x 8 out

Monitor Amplifiers: AB Systems 205, Dynaco ST-80

Monitor Speakers: E-V Sentry III's; ROR's

Echo, Reverb, and Delay Systems: Lexicon 224 and automated

mixdown, Eventide Harmonizer H-910.

Other Outboard Equipment: Orban parametric equalizers (2);

dbx 160 comp/limiter (2); Kepex; 16 tracks dbx; Echoplex; asst.

flangers & phasers; TRS-80K computer handles track logging and

information storage interfaced with Eventide's 1/2 octave frequen-

cy analyzer.

Microphones: Beyer M-500; AKG 414-EB, 451's, 505's, 707;

Shure SM-57's, SM-58's; Sennheiser 421; Wright SR-1.

Instruments Available: Studio upright piano, Mini Moog, string-

synthesizer, steel guitar, Martin D-35 acoustic & Gibson 150

guitars, asst. percussion.

Rates: Upon request.

••• SINGLETON SOUND STUDIO

3106 Belmont Blvd., Nashville, TN 37212

(615) 385-1960

Owner: Shelby Singleton.

Studio Manager: John Singleton.

••• SOUND OF BIRMINGHAM

also REMOTE RECORDING

3625 5th Ave. So., Birmingham, AL 35222

(205) 595-8497

Owner: Don Mosley

Studio Manager: Don Mosley.

••• SOUNDTRAX, INC.

also REMOTE RECORDING

1626 Glenwood Ave., Raleigh, N.C. 27608

(919) 832-9953

Owner: SoundTrax, Inc.

Studio Manager: Don Stone

••• SPECTRUM RECORDING STUDIOS, INC.

also REMOTE RECORDING

999 S. Federal Hwy., Deerfield Beach, FL 33444

(305) 428-0119

Owner: Spectrum Recording Studios, Inc

Studio Manager: Ray Lyon.

Direction: In just 3 short years, we've grown from a small 8 track

operation to one of South Florida's finest 16 track recording

facilities. Our philosophy is to provide a quality recording service

at the best possible price to you. Flexibility is a key to our opera-

tion, both in our pricing and in the control room. We also

specialize in recording contemporary Christian and gospel music.

Our affiliate, Paragon Productions produces top notch jingles and

broadcast products for radio and T.V. Look for us to go 2" in

mid-1982. This studio is putting out! Call or write for more infor-

mation.

••• STRAWBERRY JAMM STUDIOS INC.

also REMOTE RECORDING

3964 Apian Way, West Columbia, S.C. 29169

(803) 356-4540

Owner: Bob & Mary Curlee.

Studio Manager: Bob Curlee.

Extras: State-of-the-art technology in a private, creative environ-

ment: Open percussion pit, three isolation booths, lounge with

playback system, color TV and fireplace adjacent to control room:

Neotek Series III console, MCI recorders, Lexicon digital reverb

& delay systems, Yamaha grand piano, Hammond B-3.

Direction: We are dedicated to producing the finest quality

recording while making you feel "at home" in our's. The at-

mosphere is relaxed and intimate, and our clients love the "vibes".

We are all experienced musicians and our basic philosophy is that

we sincerely care about every project that we get involved with.

(TLC) We are an affiliate member of SPARS, and repeat business

is phenomenal so reservations are recommended. Ask around!

Then call us.

••• "A SUMMER PLACE" (Formerly Studio by the Pond)

also REMOTE RECORDING

204 Shoreline Drive, Rt. 2, Hendersonville, TN 37075

(615) 824-2311

Owner: Lee Hazen.

Studio Manager: Lee Hazen.

••• SWEETBAY RECORDING STUDIOS

also REMOTE RECORDING

1317 Jackson Bluff Rd., Tallahassee, FL

(904) 576-8868

Owner: Burt Norton.

Studio Manager: Fred Chester

••• TANDEM RECORDING STUDIO

13 Moore St., Bristol, VA 24201

(703) 466-8675

Owner: Tandem Records, Inc.

Studio Manager: Joe Deaton.

••• TELSTAR RECORDING STUDIO

2074-17th St., Sarasota, FL 33580

(813) 365-0337

Owner: Ricks C. Moulton.

Studio Manager: Ricks C. Moulton.

Engineers: Ricks C. Moulton, Bud Snyder.

Dimensions of Studio: 850 square ft.

Dimensions of Control Room: 300 square ft.

Tape Recorders: MCI JH 114 16 track; MCI JH 110 2 track;

MCI JH 110 2 track.

Mixing Consoles: MCI JH 428, 20 in x 20 out

Monitor Amplifiers: JBL, SAE, BGW, Phase Linear

Monitor Speakers: JBL 4343, JBL 1100, Auratones

Echo, Reverb, and Delay Systems: MasterRoom, Lexicon, Lex-

icon 224, Eventide.

Other Outboard Equipment: dbx limiter, UREI limiters, Kepex

Gain Brain, Audioarts parametric EQ, EXR, Orban De-Esser,

White 1/6 octave EQ.

Microphones: PZM's; Neumann U-87's; AKG 414's; SM-56's;

57's; Sennheiser 421's; Sony and E-V

Instruments Available: Yamaha electric grand, ARP, Hammond

B-3 w/Leslie, Tama drum kit, B and K test equipment.

Rates: Call for quotation.

Extras: Studio design by John Storyk

••• TRACK-16 RECORDING STUDIOS

also REMOTE RECORDING

118 Constitution Ave., Lexington, KY 40508

(606) 253-0588

Owner: Track-16, Inc.

Studio Manager: Thomas D Tandy

••• TRACK PRODUCTIONS

207 Mulberry Dr., Summerville, S.C. 29483

(803) 871-1830

Owner: Tommy Flack.

Studio Manager: Tommy Flack.

••• TWELVE OAKS RECORDING STUDIO

3830 South Cobb Dr., Ste. 100-A, Atlanta, GA 30080

(404) 435-2220, 435-2221

Owner: Sonny Lallerstedt, Randy Bugg.

Studio Manager: R. Bugg.

••• WILLOW CREEK STUDIOS

also REMOTE RECORDING

2228 Redmond Circle, Rome, GA 30161

(404) 232-6954

Owner: Morgan Ayers.

Studio Manager: Morgan Ayers

24 TRACK The Southeast

**** **A&B SOUND STUDIO**
1314 Ellsworth Ind. Dr. N.W., Atlanta, GA 30318
(404) 355-8680
Owner: International Music Marketing, Inc.
Studio Manager: George Pappas

**** **ALLEN-MARTIN AUDIO**
also **REMOTE RECORDING**
9701 Taylorsville Rd., Louisville, KY 40299
(502) 267-9658
Owner: J.R.F. Inc.
Studio Manager: Hob Ermspiker

**** **ALPHA AUDIO**
2049 W. Broad St., Richmond, VA 23220
(804) 358-3852
Owner: Alpha Recording Corp.
Studio Manager: Mary Ann Turner

**** **ARDENT RECORDINGS, INC.**
also **REMOTE RECORDING**
2000 Madison Ave., Memphis, TN 38104
(901) 725-0855
Owner: John Fry
Studio Manager: Dave Rasmussen
Engineers: William C. Brown, Robert Jackson, John Hampton, Eddie Degarmo, Dana Key, Joe Hardy, Larry Nix, Jack Holder, Tim Farmer, Henry Bush
Dimensions of Studios: Studio A 25'W x 40'L x 16'H, Studio B 25'W x 20'L x 16'H, Studio C 25'W x 35'L x 14'H, Mastering: 15'W x 20'L x 10'H, Each studio with two isolation booths.
Dimensions of Control Rooms: Studio A 16'W x 25'L x 10'H, Studio B 16'W x 25'L x 10'H, Studio C 18'W x 25'L x 10'H
Tape Recorders: (3) MCI JH 1624 24 track, 3M M56 16 track, (3) MCI JH-110 2 track, 3M M79 2 track; (2) 3M M64 2 track, (3) Scully 280 2 track
Mixing Consoles: MCI 542, 42 in x 32 out, Spectra Sonics 24-16 28 in x 24 out; Spectra Sonics 22-16, 24 in x 24 out. Mastering room equipped with Neumann VMS-70 lathe.
Monitor Amplifiers: BGW, Crown
Monitor Speakers: JBL 4350, Audicon, JBL 4311, JBL 4340, Auratones, Advent, Braun
Echo, Reverb, and Delay Systems: 3 EMT 140, 3 acoustic chamber, (2) H949 Harmonizer, Lexicon, Allison, Eventide, Marshall ADR
Other Outboard Equipment: Limiters and compressors: Neve, dbx, ADR, Fairchild, UA, EMT; Equalizers: Neve, Orban, ADR, Pultec, Noise gates: Kexex, ADR. All multi-tracks and two tracks equipped with Dolby A; (dbx optional for two tracks). All rooms tuned with UREI filters and B&K spectrum analyzer. Studio equipped with MCI automation.
Microphones: Neumann U87, U67, U64, M249, KM86, KM84, AKG C-414, C-451, D224, D12, D-200, Sennheiser MD-421, MD-441, Electro-Voice RE-20, RE-16; Shure SM-53; Beyer M201
Instruments Available: Steinway grand, Yamaha grand, Chickering grand, ARP 2500, Hohner clavinet, Hammond organ, Fender Rhodes 88; Gretsch drums, Fender, HiWatt, Acoustic, Ampeg amplifiers

Extras: MCI SMPTE synchronizer, cable television, kitchen, two lounges
Rates: Upon request
Direction: Clients: ZZ Top, Bar-Kays, Parliament/Funkadelic, Point Blank, Robin Trower, Led Zeppelin, Con-Funk-Tion, Anita Ward, Emerson Lake & Palmer, Bootsy's Rubber Band, Cheap Trick, Memphis Horns, Commodores, Leon Russell, Isaac Hayes, Black Oak, Roy Clark, Charlie Rich, Amazing Rhythm Aces, De Garmo & Key, Mylon LeFevre, Too Tall Jones, Shaun Cassidy, Ebonee Webb, Chocolate Milk, Kwick

**Ardent Studios
Memphis, TN**



**** **ARTISAN RECORDERS, INC.**
ONLY REMOTE RECORDING
1421 S.W. 12 Avenue, Pompano Beach, FL 33060
(305) 786-0660

Owner: Peter J. Yianilos
Studio Manager: Scott Strawbridge
Direction: Some clients AC/DC, Atlanta Rhythm Section, Blackklot, Pat Benatar, Roy Clark, The Commodores, Crosby, Stills & Nash, Heart, Al Jarreau, George Martin, Willie Nelson, Jaco Pastorius, The Police, Kenny Rogers, Linda Ronstadt, Spyro Gyra, Weather Report. We have been providing complete on-location multi-track recording & soundmixing services to the record, television, radio, and film industries for 6 years. In that time, we have earned a reputation as one of the finest mobile recording companies in the business. We are very grateful to our many clients for putting their faith in us and putting us on the map.

**** **AUDIO MEDIA RECORDERS**
808 19th Ave. South, Nashville, TN 37203
(615) 327-9301
Owner: C.E. Jackson, Paul Whitehead, Doug Yoder, R.C. Patrick
Studio Manager: Paul Whitehead
Dimensions of Studios: #1 30' x 28', #2 14' x 13'
Dimensions of Control Rooms: #1 22' x 16', #2 13' x 16'

Tape Recorders: #1 Studer A-80 24 track, Studer B-67 2 track, #2 Studer A-80 24 track, Studer B-67 2 track
Mixing Consoles: #1 Harrison 3232C, 28 in x 28 out, #2 Harrison MR-2-28.
Monitor Amplifiers: BGW, Phase Linear.
Monitor Speakers: Westlake TM 1, JBL 4310, and Auratone in both studios
Echo, Reverb, and Delay Systems: (3) EMT stereo units, Lexicon 102
Other Outboard Equipment: Eventide Harmonizer; (6) dbx 160's, dbx 165; Dolby noise reduction, UREI 1176LN's (2), (2) LA3A's, stereo Orban EQ, Pultec EQ, Accu Punch, Accu Sync
Microphones: Shure SM-57's; Sennheiser 421, Neumann B7 FET, 47 FET, 67's, 249's, 84's; AKG 414's, 451's, 202E, C-60; E-V RE-20's, RE-15's, 635's; Studer Schoeps SKM5s
Instruments Available: Yamaha 9' grand, B-3 organ, Fender Rhodes, Hohner clavinet, Wurliizer electric piano, ARP Axse and Omni, Pearl drum set, 50 percussion instruments
Rates: Supplied on request and based on volume

**** **BAYSHORE RECORDING**
2665 S. Bayshore Dr. Suite 100, Coconut Grove, FL 33133
(305) 856-5942
Owner: Bill Szymczyk
Studio Manager: Harnet DellaCasa

**** **BEE JAY RECORDING STUDIOS**
5000 Eggleston Avenue, Orlando, FL 32810
(305) 293-1781
Owner: Eric T. Schabacker, President
Studio Manager: Jim Katt
Engineers: Bill Vermillion, Andy deGanahl, Dana Cornock
Dimensions of Studios: A 35' x 45', B Irregular 25' x 12' and 12' x 12'
Tape Recorders: Stephens 821B 16/24/32 track; MCI JH 115-24 8/16/24 track; Ampex ATR-100-2 2 track; Studer B-67 2 track (2), ElectroSound ES-500 2 track, Ampex MR-70 4 track, Ampex MR-70 2 track.

Mixing Consoles: Studio A: Sphere Super Eclipse "C", 34 in x 24/32 out, Studio B: Audiotronics 501, 26 in x 16/24 out
Monitor Amplifiers: Studio A: Crown DC-300's (mids, lows), BGW 100 (highs), Studio B: BGW 750

Monitor Speakers: Studio A: Westlake TM-1 (modified ported, Gauss drivers, woofers, tramped), Studio B: UREI 811 Time Align, Auratone 5C and JBL 4311 also available

Echo, Reverb, and Delay Systems: (2) EMT ST-140, MICMIX Model III (Super C), MICMIX Master-Room; Lexicon 224

Other Outboard Equipment: ADR Vocal Stresser, ADR Scamp Rack dbx 160, dbx 162, dbx 165, Marshall Time Modulator, Eventide 1745 DDL, Harmonizer 949, Harmonizer 910, Eventide Instant Flanger, Lexicon Pnme Time, UREI LA4A, UREI 1176, Orban stereo synthesizer, Orban dual parametric, Pultec EQP-1A3

Microphones: Neumann U-87, U-47, KM-84, KM-86, AKG C-414, C-451E, C 24, D-12, D-200, Sony C-37P, Schoeps CM-54, Sennheiser 421, 441, Shure SM-5, SM-7, SM-53, SM-57, SM-58; Beyer MD-160, RCA 77DX, Electro-Voice CS-15, RE-20, RE-16, RE-15, 635A, Wahrenbrock PZM-A

Instruments Available: Kawai 74" grand piano, Steinway 6' grand piano, Hammond C-3 w/Leslie, Hohner clavinet, Rhodes 73 Mini Moog Model D, EML 100 200, "Poly Box" synthesizers, Pearl drum set, Rogers drum set, Music Man amps, Mu-Tron B/Phase, Mu-Tron III

Extras: dbx noise reduction (56 channels), Dolby (24 channels), Allison 65K automation (Studio A), lounge areas, quest cottage, apartment

Rates: Studio A \$145/hr (16, 24 or 32 track), weekly rates available, Studio B \$95/hr 24 track, \$75/hr 16 track, \$60/hr 8 track, weekly rates available. All instruments, signal processing included at no extra charge

Direction: As our advertising denotes, we believe "The difference is How You're Handled" Groups like Molly Hatchett, Blackfoot, Pat Travers, Doc Holliday, Cameo, Nantucket, Long John Baldry, Axe and others have proven that it's true. Credits include 6 gold, 2 platinum LP's

**** **THE BENNETT HOUSE**
134-4th Avenue N., Franklin, TN 37064
(615) 790-6896

Owner: Norbert Putnam
Studio Manager: Ann Keener
Engineers: Call for list of independents, studio provides tape assistant

Dimensions of Studios: 44' x 18', two isolation booths
Dimensions of Control Room: 20' x 26'

Tape Recorders: (2) MCI transformerless w/SMPTE lock-up, BTX sync 24/46 track, (2) Studer B62 2 tracks, Ampex ATR 100 1/2" 2 track, (2) Technic cassettes

Mixing Consoles: Trident A, 28 in x 24 out.

Monitor Amplifiers: Yamaha's
Monitor Speakers: Tn Amp Klein & Hummel; JBL 4313, 4315 & 4310's, Technics F-2's, Yamaha NS10's, Braun 3-wav, Auratones

Echo, Reverb, and Delay Systems: EMT 250 Digital, Lawson Plate, AMS DDL, Eventide 949
Other Outboard Equipment: Scamp Rack with 10 noise gates, (2) EQ's, (2) limiter-compressors, time shape module, auto pan, vocal stresser

Microphones: Tube M-249, 87's, 414's, 421's, 224's, etc
Instruments Available: Baldwin 7' and Eddie Reynolds Rhodes
Rates: \$125/hr

•••• **BIAS RECORDING CO., INC.**
also **REMOTE RECORDING**
5400 Carolina Place, Springfield, VA 22151
(703) 941-3333

Owner: Bill McElroy, Bob Dawson
Studio Manager: Gloria Daniels
Engineers: Bill McElroy, Bob Dawson, Norm Rowland, Jim Robeson, Chuck Rohrer
Dimensions of Studios: A 16' x 28' and 15' x 20' (sweetening and rhythm), B 15' x 20', C 12' x 14'
Dimensions of Control Room: A 20' x 20', B 20' x 20', C 12' x 14'

Tape Recorders: Ampex 1200 24/16/8 track, Ampex 110 16/8 track, (6) Studer B-67 2 track, Studer A-67 2 track, (2) TEAC PC-10 cassette

Mixing Consoles: API Modified 2488, 24 in x 24 out, API Modified 1604, 16 in x 16 out

Monitor Amplifiers: Crown DC 300A (White) octave voicing in A + B

Monitor Speakers: Hidy (Sierra Audio) monitors, JBL 4320, JBL 4301, JBL 4333

Echo, Reverb, and Delay Systems: EMT plate reverbs, AKG BX 20

Other Outboard Equipment: dbx compressor/limiters, Dolby NR, UREI limiters, Teletronix leveling amps, Lexicon Prime Time digital delay, Eventide Harmonizers

Microphones: Neumann U-47's, U-67's, U-87's, KM 84's, AKG C-451's, Shure SM-57's, SM-53's

Instruments Available: (2) Yamaha conservatory grand pianos, Hammond B-3 organ, Fender Rhodes, Hohner clavinet, Fender Precision bass, Slingerland drum kit

Rates: \$40 to \$95/hr, depending on studio and tracks used. Bulk rates available

Extras: Fender Deluxe, Pro, Twin Reverb, Music Man 410 amps. Listening and dubbing room, lounge and t.v. area, close to hotels and restaurants

Direction: Knowledgeable and creative professionals provide the Washington, D.C. area with a World Class facility in a comfortable, friendly manner

•••• **BROKEN DOOR STUDIO**
also **REMOTE RECORDING**
5405 Stanford Dr., Nashville, TN 37215
(615) 269-0727

Owner: Keeble Media Group
Studio Manager: Peter Keeble
Engineers: Richard Achor, Peter Keeble, various

Dimensions of Studio: 17' x 25'

Dimensions of Control Room: 10' x 19'

Tape Recorders: MCI JH-114 24/16 track, Studer B-67 2 track, Ampex 440 4/2/mono, Revox A-700 2 track, Scully 280 2 track, TEAC 3300S 2 track; Technics cassettes

Mixing Consoles: Tangent 3216, 24 in x 24 out, highly modified w/4 additional effects sends; 12 additional returns

Monitor Amplifiers: Bryston 4B, McIntosh 2200, GAS, BGW, Crown

Monitor Speakers: ADS 730, ADS 810, JBL 4313's, JBL 4311, MDM-4, Auratone, Celestion

Echo, Reverb, and Delay Systems: Digitrak plate, Lexicon 224, AKG BX-10, Eventide Harmonizer H-910, DeltaLab DL 1, DL 2, Lexicon 91

Other Outboard Equipment: dbx 165, 160, 161; UREI LA3A, Orban Stereo Parametric EQ, ADR Stereo Sweep EQ, Kepex 500's, EXR exciter, Orban sibilance controller, high pass filters, 30 channels dbx 411, Dolby 361 (2), White octave EQ, Mr Coffee

Microphones: Neumann, AKG, Beyer, PZM, Sennheiser, Electro-Voice, Sony, Shure

Instruments Available: 1923 Steinway M grand piano, Hammond organ, Rhodes piano, Wurlitzer electric piano, Music Man and Fender amps, Pearl drums, Slingerland drums, Gon Bops congas

Rates: Supplied upon request, very reasonable

Extras: Convenient, private, nice view, good feel

Direction: Primarily a private production facility utilizing an integrated media approach with emphasis on audio production, music publishing, artist management, creative career development, and associated film/video production. The studio is available independently or in conjunction with the other services. We are continuing cost effective growth. Providing a relaxed environment while maintaining quality and creativity throughout every involvement

•••• **BULL RUN STUDIO OF NASHVILLE**
also **REMOTE RECORDING**
Route 3, Box 120, Ashland City, TN 37015
(615) 254-6538

Owner: Sanborn Productions
Studio Manager: Carl Frost

•••• **BULLET RECORDING**
also **REMOTE RECORDING**
49 Music Square West, Nashville, TN 37203
(615) 327-4621
Owner: Randy Holland
Studio Manager: Piers Plaskott

24 TRACK The Southeast

•••• **CAPRICORN STUDIOS**
561 Cotton Ave., Macon, GA 31201
(912) 745-8518

Owner: Capricorn Records
Studio Manager: Tad Bush
Engineers: Tad Bush

Dimensions of Studio: 42' x 26', 42' x 20' (rehearsal studio)

Dimensions of Control Room: 26' x 20'

Tape Recorders: Studer A80 24/4/2 tracks (2), B67 (2), Revox A 700, A-77 (4)

Mixing Consoles: API Custom w/ Allison Fader Automation

Monitor Amplifiers: Studer A-68 (2), Crown DC300 (7), D150, D60

Monitor Speakers: Westlake TM-1 (4), JBL 4320 (4), JBL 4311 (4), MDM, Alterc 604 (4), KLH #6, KLH #17, B&O #S60, Auratones

Echo, Reverb, and Delay Systems: EMT 250, EMT 140 (2), (2) live chambers, Lexicon 1745 (2), Cooper Time Cube, Echoplex, tape slap

Other Outboard Equipment: 30 channels Dolby, Eventide Flanger and Phaser, Audio Design, EMT, UREI, Universal Audio (tube), and Spectra Sonics limiters, API, Sontec, and UREI EQ, dbx Boom Box, Kepex (6)

Microphones: Neumann, Sony, RCA, AKG, Beyer, E-V, Studer, Sennheiser, Shure

Instruments Available: 9' Steinway, 6' Kawai, Rhodes, Wurlitzer, and Schultz upright pianos, clavinet, MiniMoog, Ham-

mond B-3, Deagan vibes, Gretsch drums, Zildjian cymbals, Ovation 6 & 12 string, Fender and MESA amps, various percussion instruments

Rates: On request

•••• **COLUMBIA RECORDING STUDIOS**
34 Music Square E., Nashville, TN 37203
(615) 259-4321

Owner: CBS, Inc.
Studio Manager: Norm Anderson

•••• **THE CASTLE RECORDING STUDIO**
Old Hillsboro Road, Route 7, Franklin, TN 37064
(615) 794-0189

Studio Manager: Neil Wilburn

Engineers: Supplied by clients or The Castle can supply

Dimensions of Studios: Size of a castle!

Dimensions of Control Room: Size of a castle!

Tape Recorders: Studer A-80 24 track, Studer A-80 2 track
Mixing Consoles: Harrison modified computer board, 36 in x 24 out

Equipment: All equipment is state-of-the-art

Rates: Please call for rates!

•••• **CHESHIRE SOUND STUDIOS**
also **REMOTE RECORDING**
2093 Faulkner Rd. N.E., Atlanta, GA 30324
(404) 633-6626

Owner: T.G. Wright, Jr.

Studio Manager: Terry Rosner

Engineers: Director of Engineering, Tom Race, Engineers Tom Wright, Will Eggleston, and Ted Kallman

Dimensions of Studios: A 32' x 44' x 16'H, B 18' x 15'

Dimensions of Control Room: A 18' x 24', B 14' x 10'

Tape Recorders: Ampex MM1100 24 track, Ampex (4) 440B 2/4 track

Mixing Consoles: MCI 428B automated, 28 in x 24 out

Monitor Amplifiers: SAE, Yamaha, Crown

Monitor Speakers: JBL, Eastern Acoustic Works, Auratone

Echo, Reverb, and Delay Systems: Live echo chambers, Lexicon 224, Model 93, Model 92, DeltaLab DL 1, DL 2, Eventide Harmonizer, MXR transposer

Everything
you'd expect in a
Great American
Studio ...

is now in
Memphis.

Recordings **ARDENT** Mastering

2000 Madison Avenue, Memphis, TN 38104

Other Outboard Equipment: Parametric equalizers; UREI 1176N, dbx 160, Orban 245E, 111B; 24 channels dbx and Dolby
Microphones: Wright microphones SR-1 and TSR-2, Neumann, AKG, Sony, etc
Instruments Available: Send for brochure
Rates: Send for brochure

**** CINDERELLA SOUND
 1108 Cinderella St., Madison, TN 37115
 (615) 865-0891
Owner: Wayne Moss
Studio Manager: Paul Moss

**** COCONUTS RECORDING CO, INC.
 1830 N.E. 153rd St., N. Miami Beach, FL 33162
 (305) 940-4656
Owner: Shirley P. Kaye
Studio Manager: Shirley P. Kaye

**** CREATIVE ARTS STUDIO
 P.O. Box 2764, Spartanburg, S.C. 29304
 (803) 576-9081
Owner: Jerry Eubanks, Doug Gray, George McCorkle
Studio Manager: Doug Gray
Engineers: Randy Neuyman, Kevin Herron
Tape Recorders: MCI 24 track
Mixing Consoles: MCI, 24 outputs
Monitor Amplifiers: McIntosh, Crown
Monitor Speakers: UREI 813A's
Echo, Reverb, and Delay Systems: Lexicon 224, plates
Other Outboard Equipment: Prime Time, Eventide
Microphones: Neumann's
Instruments Available: Pianos, organs
Rates: Call for rates

24 TRACK The Southeast

Other Outboard Equipment: Eventide H949 Harmonizers, Teletronics LA-2A limiters, UREI 1176 and LA-4 limiters, dbx 160 and 165 limiters, dbx 900 Series gates, de-essers and compressors, Pullec equalizers, Trident equalizers, Eventide 1745M's, Lexicon Prime Time's, Kepex Gain Brains, MXR flangers, ADR Vocal Stressor, (3) MCI JH-45 SMPTE synchronizers
Microphones: Neumann U-47, U-67, U-87, KM 84, KM 86, U-47FET; Sony ECM-22, 50, 51, 377, C-37P, C 55P, C 500, Beyer M-88, 101, 160, 260, AKG C-12, 414, 414EB, 452EB, 224E, D-12, Schoeps M-221B (tube), CMT 54, 55, 501, CML 03, Collette Series, Shure 984 Stereo, PML DC 73 ST B/48, Altec 633

Instruments Available: 9' grand piano available in studios A, C and E, Baldwin, Mason Hamlin and Baldwin SDIOX. Complete inventory of rental instruments available through associated company, Rent-a-Sound

Rates: Our rates are very flexible depending on the individual situation. Please call Macia Latta, Traffic Manager, for information
Extras: Separate living rooms available for relaxation, sun deck, pinball, TV's, pool table, video games, coffee, tea, hot chocolate
 Miami Beach mansions with pool and docks available through Home At Last with meals and maid service

Direction: Cntena is a full service studio. Over 100 gold and platinum awards from the major recording artists around the world. Our belief in having state-of-the-art equipment has kept us continually updating since our inception 27 years ago. Cntena is unique in that it offers an award winning staff of engineers as part of our service and are included in our rates. Our east wing is now open representing many technological and acoustical developments new to our industry thus pointing the way for the new sound of the 80's

**** DOPPLER STUDIOS, INC.
 1922 Piedmont Circle, N.E., Atlanta, GA 30324
 (404) 873-6941

Owner: Pete Caldwell
Studio Manager: Pete Caldwell
Engineers: Bill Quinn, Chief Engineer, Brad Jones, Steve Davis, Michael Bennett, Jeff Brugger, Todd Plewacki
Dimensions of Studios: A 35' x 50' (with 2 isolation booths and live end dead end), B 25' x 35' (with 1 isolation booth and live end dead end), C 15' x 20', D 12' x 15'
Dimensions of Control Room: A 15' x 25', B 15' x 17', C 10' x 15', D 10' x 13'
Tape Recorders: Otari MTR-90 24 track, 3M 79 24/16 track Ampex ATR-100 2/mono, Scully 280 4/2/mono
Mixing Consoles: Sphere Eclipse C, 40 in x 40 out, Sphere A, 28 in x 24 out, Audiotronics 110-A, 12 in x 4 out, custom, 8 in x 8 out

Monitor Amplifiers: Crest, Yamaha
Monitor Speakers: UREI 813, JBL 4311, Auratones
Echo, Reverb, and Delay Systems: Lexicon 224, Lexicon Prime Time, EMT 140 plates, Eventide 1745M, Marshall Time Modulator

Other Outboard Equipment: ADR Vocal Stressor, dbx 160, 163, 165 and UREI 1176 compressor/limiters, Kepex, Gain Brain, dbx noise reduction, Orban Parametric equalizers and de-essers
Microphones: Neumann, AKG, Studer, Sennheiser, Shure, and Electro-Voice

Instruments Available: Steinway grand and Baldwin baby grand pianos, Ludwig and Rodgers drum sets, Hammond B-3 w/Leslie cabinet, Fender amps
Rates: Upon request

**** FANTA PROFESSIONAL SERVICES
 also REMOTE RECORDING
 1213 16th Avenue South, Nashville, TN 37212
 (615) 327-1731

Owner: Johnny Rosen
Engineers: Johnny Rosen, Mervin Louque
Dimensions of Studios: 40' x 20'
Dimensions of Control Rooms: 35' x 8', built into a tractor-trailer truck
Tape Recorders: (2) Ampex MMI200s, locked together, 24/46 track, Ampex 440-B 4 track, (2) Ampex 440-B 2 track, Nagra 4 2L, Sony TCK71 cassette, Nakamichi cassette
Mixing Consoles: Sphere Eclipse A, 32 in x 32 out
Monitor Amplifiers: McIntosh

Monitor Speakers: Electro Voice Sentry III, Klipsch, JBL 4311's, Auratones

Echo, Reverb, and Delay Systems: Master-Room, Lexicon, metal plate echo, Marshall 5402

Other Outboard Equipment: dbx 160 (6), UREI-1176 LN (2), (4) Dynamites by Valley People, flangers and time-distribution devices

Microphones: Eighty assorted microphones, including Sennheiser, Schoeps, Calrec, Electro-Voice, and Sony
Instruments Available: Grand piano, organ, drums, many guitar amps and synthesizers

Extras: A 3400 square foot apartment on the premises is available for our customers' use with the studio. All food and accommodations are included

Rates: \$3,000 per day for mobile recording. Studio rates are negotiable

Direction: Credits: New York Philharmonic, The Rolling Stones, Kansas, Journey, Crystal Gayle, REO Speedwagon, Lou Rawls, The Charlie Daniels Band, "Blues Brothers" movie, Robert Altman's "Nashville", "Coal Miner's Daughter" Our aspiration is to provide sophisticated, transparent mobile recordings. The audio needs of our clients in the television, record, and film industries are all different. From mono Nagra recordings through a 46 track lock up system, we try to meet those needs without interfering with the artistic feel of the project

**** FANTASY WORKSHOP
 1975 N.E. 149th St., No. Miami, FL 33181
 (305) 940-3999
Studio Manager: Jim Rudd

**** GLASER SOUND STUDIOS
 916-19th Ave. S., Nashville, TN 37212
 (615) 327-0005
Owner: Thomas P., Charles V., James W. Glaser
Studio Manager: June Glaser for bookings

**** GREAT CIRCLE SOUND
 365 Great Circle Rd., Nashville, TN 37228
 (615) 259-9111

Owner: Teh Benson Co
Studio Manager: Kym Harrison
Engineers: Bob Clark, Chrs McCollum
Dimensions of Studios: 40' x 60'
Dimensions of Control Room: 12' x 18'
Tape Recorders: MCI JH-114 24 track, MCI JH-110 2 track, TEAC 601 cassette
Mixing Consoles: MCI JH-528, 28 in x 28 out
Monitor Amplifiers: Crown D150, AB410
Monitor Speakers: UREI Time Aligned 813's, JBL 4311's, Auratones 5C

Echo, Reverb, and Delay Systems: Lexicon digital delay 102 Delta, EMT 240 Gold Foil, AKG BX-20, Spring echo
Other Outboard Equipment: Eventide Flanger, (4) UREI 1176 limiters, (2) UREI LA3A limiters, (2) dbx 160 limiters, Orban parametric EQ, Orban De-Esser, harmonizer, Kepex, Dolby
Microphones: Neumann U-87, U-47, KM-84, Sennheiser 421, 441, AKG 414, 224E, D202, Shure SM-56, 57, Electro-Voice RE-16, Beyer 160
Instruments Available: Yamaha 7'4" grand piano, ARP String Ensemble, Hammond C3 organ & Leslie, Wurliizer electric piano, clavinet, Music Man bass & guitar amps, UREI bandpass filter
Rates: \$130/hr with engineer, \$115/hr, no engineer.

**** GROUNDSTAR LABORATORY
 (Division of Ronnie Milsap Enterprises)
 12 Music Circle So., Nashville, TN 37203
 (615) 244-4861
Owner: Ronnie Milsap
Studio Manager: Don Refues, Ben Harris

**** HAYES RECORDING STUDIO
 2406 South MacDill Ave., Tampa, FL 33609
 (813) 837-6384

Owner: Paul Hayes
Studio Manager: Paul Hayes
Engineers: Paul Hayes, Jim Cottle, Gary Rivera (freelance engineers welcome)
Dimensions of Studios: 20' x 24' x 12', 8' x 9' drum booth
Dimensions of Control Room: 20' x 15' x 9'
Tape Recorders: Ampex MM 1200 24 track, Ampex 440 B track, Ampex 440B 2 track, Scully 280B 2 track, Tascam 404 4 track

Mixing Consoles: Sphere A custom, 24 in x 16 out
Monitor Amplifiers: Crest P3500, Yamaha P2050 (phones)
Monitor Speakers: UREI 813, Sentry III, Auratone 5C
Echo, Reverb, and Delay Systems: MICMIX Master Room III, MICMIX XL305, Eventide Harmonizer H910, DL2 Acoustic computer
Other Outboard Equipment: dbx 160 compressor/limiters, Orban 516EC De-esser, Audiotacs 4200A parametric, ADR Vocal Stressor, dbx 208 noise reduction, UREI room equalizers 539
Microphones: Neumann U-87, RCA 77DX, 44DX, Beyer M160N (C), P2M, Electro-Voice RE-15, 666, Sony C-37, Shure SM-53, 54, 57, 58, 81, 545, AKG D-200E, 707-E, D-202, D 12,



Criteria Recording Co.
Miami, FL

**** CRITERIA RECORDING CO., INC.
 also REMOTE RECORDING
 1755 N.E. 149th St., Miami, FL 33181(305) 947-5611
Owner: Mack Emerman
Studio Manager: Rick Allison (operations), Jack Davis (General), Marcia Latta (Traffic), Marjorie Curry (Studio Manager), Steve Beverly (Technical), Joe Foglia (Remote)
Engineers: Steve Klein (Senior), Bruce Hensal, Dennis Hetzendorfer, Chuck Kirkpatrick, Al Stegmeyer, Steve Kumball, Bob Castle, Patrice Carroll, Alex Clarke, Mastering Mike Fuller, Technical: Chrs Joyce (Chief), Scott Phillips, Oliver Masciarotte, Bob Kosiba, Stan Lambert, Remote: Jim Sesody, Eddie Garcia
Dimensions of Studios: A 50' x 75' x 20' High, B 30' x 40' x 16' High, C: 25' x 32' x 16' High, D 15' x 22' x 10' High, E: 40' x 50' x 28' High
Dimensions of Control Room: A: 13' x 16', B 12' x 24', C 15' x 16' (modified LEDE); D: 17' x 19', E 24' x 25' (modified LEDE)

Tape Recorders: (6) MCI JH 114-24 (transformerless) 24 track, (5) MCI JH 110B (transformerless) 2 track, (2) MCI JH 110B (transformerless) 2/4 track; EM/MCI JH 220 (digital) 2 track
Mixing Consoles: (3) MCI JH 532, 32 in x 32 out, MCI JH 548, 48 in x 32 out; MCI JH 528, 28 in x 28 out, MCI JH 636 (custom remote) 48 in x 32 out
Monitor Amplifiers: McIntosh, Crown, Crest and UREI
Monitor Speakers: Custom designed, 3-way, bi-amped EM Long Time Aligned TM System, also custom designed tri-amped systems using Cetec, JBL and TAD components, UREI TA-813's, JBL 4311's; Acoustats, Visicon David 100's, Auratones
Echo, Reverb, and Delay Systems: (4) Stereo Ekoklates; Stereo EMT plate; (3) Stereo "live" chambers, (2) Master-Rooms, (2) Lexicon 224; EMT 250; EMT 251, UREI Time Cube

C-451E; Sennheiser 421

Instruments Available: Marshall & Wendell grand piano, Hammond organ w/ Leslie, Deagan electric chimes, Ludwig drums w/ Zildjian cymbals, Fender Champ and Twin amplifiers, Rock amplifier. All other instruments available on rental basis.

Rates: 24 tracks: \$85/hr, \$70/hr 8 hours or more, mix: \$60/hr; 16 track: \$75/hr, \$60/hr 8 hours or more, mix: \$50/hr; 8 track: \$60/hr, \$50/hr 8 hours or more, mix: \$40/hr

Extras: Musicians available, sound effects library, production music library, custom audio visual programs, jingle production 10 minutes from Tampa International Airport

**** **HILLTOP RECORDING STUDIO, INC.**
902 New Due West Ave., Madison, TN 37115
(615) 865-5272

Owner: Billy Linneman, Jack & Betty Jo Linneman

Studio Manager: Betty Carpenter

Engineers: Kevin McManus, Chief, Jack Linneman, Billy Linneman, John Nicholson, Remix Engineer

Dimensions of Studios: A: 18' x 35' x 9', B: 22' x 25' x 9'

Dimensions of Control Room: A: 18' x 20' x 8', B: 22' x 25' x 9'

Tape Recorders: MCI JH 110 16 track, MCI JH 114 24 track

Mixing Consoles: Custom made, 28 in x 24 out

Monitor Amplifiers: Crown tri-amp, DC 300 D150, D60

Monitor Speakers: Klipsch K horn.

Echo, Reverb, and Delay Systems: (2) EMT plates, Eventide Digital Delay & Harmonizer, Cooper Time Cube Studio B: Lexicon 224 digital reverb

Other Outboard Equipment: Dolby or dbx noise reduction, TTM rack, Eventide Flanger, dbx limiters, UREI limiters, D'Essex Studio B Disk mastering and direct-to-disc

Microphones: Neumann, Shure, Sony, AKG

Instruments Available: Steinway CD-9 concert grand, various—everything

Rates: On request

**** **LIVE OAK SOUND RECORDERS**

110 College Place, Norfolk, VA 23510

(804) 627-5545

Owner: Live Oak Sound, Inc

Studio Manager: Jim Mikles

**** **MAJESTIC SOUND STUDIO**

3800 Kieth St. N.W., Cleveland, TN 37311

(615) 472-8200

Owner: Church of God of Prophecy (general headquarters)

Studio Manager: Thomas Duncan

**** **MARINER RECORDERS (formerly Island Recorders)**

2808 Azalea Place, Nashville, TN 37204

(615) 327-2580

Owner: Mariner Trust

Studio Manager: Fred Vail

Engineers: Dave Shipley, Chief Engineer, Dave Hieronymus, 1st Engineer

Dimensions of Studios: 42' x 30' plus vocal booth, 24' ceiling, 12' x 14' drum booth with 13' ceiling

Dimensions of Control Room: 22' x 24'

Tape Recorders: Studer A80 24 track, Studer A80 1/2" 2 track, Studer B67 2 track, Scully 280 (3)

Mixing Consoles: Harrison 2824 with Allison computer, 28 in x 24 out

Monitor Amplifiers: Crown, BGW, Quad, McIntosh

Monitor Speakers: Westlake Design, JBL 4320, 4311; "Little Red"; Altec 604E; Tannoy

Echo, Reverb, and Delay Systems: 2 live echo chambers, Echoplex, AKG BX20, (2) Prime Times, Sony digital reverb DRE-2000

Other Outboard Equipment: ADR Scamp rack with 13 modules, ADR Vocal Stressor, (4) dbx limiters, (3) UREI limiters, Eventide Harmonizer, Eventide Flanger, de'essers, noise gates, 24 track Dolby and dbx

Microphones: Neumann U-87, U-67, U-47, KM 84; AKG 414, 452, D-1000E; Shure 77, E-V RE-15, RE-20; PZM; Sony ECM-50, RCA 77

Instruments Available: Baldwin grand, Fender Rhodes, Fender amps, Pearl drums w/extra toms, Hammond B-3 organ, Multimoog

Rates: \$85 to \$125/hr, day and week block rates available on request

Extras: Whirlpool, sundeck, sauna, 20' x 20' musicians lounge with wet bar, fireplace, kitchen, conference room, writers room, 14 ft beamed ceiling, glass atrium, 5,000 sq ft complex structure is 12 inch block sand filled. Construction by Tim Cassidy & Associates, detailed acoustical design by Richard Lee

Direction: Due to open in Spring '82, Manner Recorders will be the largest new studio in Nashville to be built in the past five years. It brings to its new facility a great tradition in recording, Mariner Recorders, in its original location at 49 Music Square West, was formerly Island Recorders, and before that, Richey House, Clients have included: George Jones, Tammy Wynette, Mickey Gilley, Doc Severnson, Christy Lane, T.G. Shepard, Allman Brothers, producer Jim Ed Norman, among others.

24 TRACK

The Southeast

**** **MARK FIVE STUDIOS**

Box 7084, 10 Michael Dr., Greenville, S.C. 29610

(803) 269-3961

Owner: Joe Huffman, Bill Huffman, Harold Huffman, Michael Burnette

Studio Manager: Dan Howell

Engineers: Eddie Howard, Dan Howell

Tape Recorders: MCI 24 track and Locator II, Ampex 2 tracks w/Dolby; Scully 4 track; Studer B-67 2 track, Akai 1/4 track, TEAC cassettes.

Mixing Consoles: MCI custom 24, Neve 8058 w/Allison automation

Monitor Amplifiers: E-V Sentry III, JBL 4301's, 4311's; Auratone 5-6's; UREI Time Align going into new facilities being constructed

Echo, Reverb, and Delay Systems: (2) EMT's, delay, (2) live chambers

Other Outboard Equipment: Eventide Harmonizer, Flanger, Mu-tron's; UREI LA-3A's, UREI 1176 LN's; Kexep and Gain Brain rack

Microphones: Neumann U-47's, U-87's, KM-84's; Sennheiser 421's; Shure SM 56's and 81's; Sony's, EU's old RCA ribbons and various other selections

Instruments Available: Baldwin 6' 4" grand piano, stereo F8 Rhodes, Wuritzer electric piano, D-6 clavinet, harpsichord, upright bass, ARP String Ensemble, set of 3 tympanies, vibes, various percussion, Hammond B-3 w/Leslie, Fender and Kasino amps.

Rates: \$110/hr (Block booking available upon request)

**** **MASTER SOUND STUDIOS, INC.**

also **REMOTE RECORDING**

1227 Spring St. N.W., Atlanta, GA 30309

(404) 873-6425

Owner: Bob Richardson

Studio Manager: Bob Richardson

Engineers: Bob Richardson, Ron Christopher, Buzz Richardson and Bret Richardson

Dimensions of Studios: Music: 43' x 25'; Production: 10' x 10'

Dimensions of Control Room: Music: 23' x 25'; Production: 10' x 10'

Tape Recorders: (2) MCI JH-114 24 tracks, MCI JH-110 1/2" 2 track; (4) MCI JH-110 1/4" 2 tracks, (2) Ampex AG 440B 2 tracks, (2) Ampex AG 440B mono's

Mixing Consoles: MCI 528-B automation, 36 in x 24 out, Audiotronics 110-B, 20 in x 4 out

Monitor Amplifiers: BGW 250, 500; Crown D-150, 300

Monitor Speakers: Audicon-Custom, JBL 4313, Auratones

Echo, Reverb, and Delay Systems: EMT 140 mono and stereo, Lexicon 224, Lexicon 102, Marshall, Eventide, ADR

Other Outboard Equipment: dbx 165, 160, UREI LA 2, LA-3, 1176; ADR limiters, Poultec; Orban EQ, ADR Vocal Stressor, Orban De'Esser

Microphones: Neumann U-64, U-68, U-47, U-47 FET, KM-86, KM-88, U-86, U-87, M 49, AKG 414, C-60, C-61, 202, Shure (all types), Electro-Voice (all types), Schoeps (all types); Sony C-37, ECM-50, RCA 77-DX; Sennheiser (all types); Altec, Telefunken, and others

Instruments Available: Baldwin 9' concert grand, Steinway 7 grand, Rhodes 7' stage, Hammond B-3 organ, Slingerland drums, Musser vibes, Ork bells, percussion kit, effects kit, Fender, Ampex and Music Man amps

Rates: On request

**** **MEGA SOUND STUDIO**

also **REMOTE RECORDING**

P.O. Box 189, Main Street, Bailey, N.C. 27807

(919) 235-3362

Owner: Lam Recording Co., Inc

Studio Manager: Richard H. Royall, President

Engineers: Johnny Falzone, Bernie Petteway, Richard H Royall

Dimensions of Studios: 18' x 30'

Dimensions of Control Room: 12' x 18'

Tape Recorders: MCI JH-114-24 Autolocator III 24 track; Scully 280B 2 track; Revox A-77 2 track, Revox A-77 2 track, Sony & Nakamichi cassettes

Mixing Consoles: MCI 400 Series, 24 in x 24 out.

Monitor Amplifiers: Crown, McIntosh, Phase Linear, Yamaha

Monitor Speakers: Bi-amplified JBL and Auratone reference

monitors.

Echo, Reverb, and Delay Systems: AKG BX-20, DeltaLab DL-2, Lexicon Prime Time, Eventide Harmonizer H910, Eventide Instant Flanger

Other Outboard Equipment: 24 channels of dbx noise reduction, dbx 187 noise reduction on mixdown, dbx & UREI compressor/limiters, Ashly parametric EQ, UREI 529 third octave equalizers, DI boxes with Jensen transformers, Eventide Audio Analyzer with Apple II 32K computer.

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

Instruments Available: Yamaha Conservatory grand piano, Hammond B-3 organ, Fender Precision bass guitar, Fender Rhodes electric piano, Pearl drum kit with cymbals by Paiste and Zildjian, Yamaha CS-60 8 voice polyphonic synthesizer, Sequential Circuits Pro One monophonic synthesizer

Rates: Write for rate card.

**** **MISSION RECORDS**

44 Music Square East, Nashville, TN 37203

(615) 256-4951 or (800) 251-3464

Owner: Louie Swift

Studio Manager: Louie Swift

**** **MORRISOUND**

also **REMOTE RECORDING**

5120 North Florida Ave., Tampa, FL 33603

(813) 238-0226

Owner: MornSound Recording, Inc

Studio Manager: Tom and Laurel Morns

Engineers: Jim Morris, Tom Morris, Rick Miller

Dimensions of Studio: Studio: 20' x 25', Isolation room 8' x 10'

Dimensions of Control Room: 22' x 18'

Tape Recorders: Otari MTR-90 (with Autolocator) 24 track; Otari 5050 1/2" 8 track; (2) Otari 5050B 2 tracks

Mixing Consoles: Sound Workshop Series 30 w/VCA grouping, 24 in x 24 out

Monitor Amplifiers: AB Systems

Monitor Speakers: UREI 811A Time Aligned, Eastern Acoustics Works, Auratones

Echo, Reverb, and Delay Systems: Master-Room 305 reverb, Loft 450 analog delay line, tape delay

Other Outboard Equipment: EXR exciter, dbx 165 (2), Valley People Dynamites (4), Moog parametric EQs, Delta Lab D14, DLS Harmon-computer, and Lexicon Prime Time available on request

Microphones: AKG 414, 451, D-12, D-1000, 330-B, Audio Technica ATM 10, 11, 31's, 41's; Electro-Voice RE-20's, PL-95's, 77, 78; Sennheiser 441's, 421's, Shure SM-57's

Instruments Available: Yamaha grand piano, Fender Rhodes and Wuritzer electric pianos, Hammond organ with Leslie, MiniMoog, Gretsch drum kit, Fender, Lab and Roland guitar amps

Rates: Please call for rates.

**** **MUSIC MILL**

27 Music Circle East, Nashville, TN 37203

(615) 254-5925

Owner: Harold Shedd, Donny Canada

Studio Manager: Harold Shedd

Engineers: Harold Shedd; Paul Goldberg, Engineer & Maintenance Technician; Gene Rice

Dimensions of Studios: 38' x 40'

Dimensions of Control Room: 20' x 28'

Tape Recorders: Studer A 80 w/Autolocator 16 (heads available)/24 track, (3) Studer B 67 2 tracks, SAE cassette

Mixing Consoles: Trident TSM with Allison/Fadex automation, 24 in x 32 out.

Monitor Amplifiers: McIntosh 2300, A/B 410, Studer cue amp

Monitor Speakers: Altec Super-Reds w/Mastering Lab crossovers, JBL 4311's, Klark-Teknik EQ's, Auratones, Philips MFB studio monitor

Echo, Reverb, and Delay Systems: (2) EMT 140's plate

Other Outboard Equipment: LA-2A, LA-3A limiters, Eventide Harmonizer, GT-4 Noise Gates

Microphones: Sennheiser 421's, Neumann 67's, 87's, 47's; Shure; Beyer; AKG; RCA DX-77, Electro-Voice, Lawson Presser Zone mikes

Instruments Available: Kawai grand, Yamaha electric piano, Wuritzer piano, drums, Fender, Music Man, Peavey amps, Hammond B-3

Rates: Call for rates.

**** **MUSIC CITY MUSIC HALL**

30 Music Square West, Nashville, TN 37203

(615) 255-9084 studio; 244-1060 office.

Owner: Owen Bradley

Studio Manager: Cecile Light

Engineers: Bill Harris, Bill Vandevort, Assistants: Doug Crider, David DeBusk

Dimensions of Studio: 50' x 80' x 30' with walls up. 50' x 40' x 30' with walls down.

Dimensions of Control Rooms: 28' x 18' x 10'.

Tape Recorders: Studer A-80 24 track; Studer A-80 Master Recorder 2 track, Studer B-67 2 track, Ampex MM-1000 16 track, (4) Ampex AG-440 2 track, Ampex AG-440 4 track;

Nakamichi Dual Tracer 500 cassette
Mixing Consoles: Neve 8038, 32 in x 24 out w/Allison Research
Fadex Automation.

Monitor Amplifiers: McIntosh 2100's

Monitor Speakers: UREI 813's, JBL 4313-B, Auratones.

Echo, Reverb, and Delay Systems: (3) EMT plates, Gotham
Audio digital delay, Eventide Harmonizer, Cooper Time Cube.

Other Outboard Equipment: Two ADR Vocal Stressors, Scamp
rack, Teletronix compressors, LA-2A, LA-3A limiters, BTX syn-
chronizer & generator (32 tracks to 40 tracks possible, EXR Ex-
citer, Dolby noise reduction, Eventide Phaser

Microphones: Neumann U-87s, U-67s, U-47s, U-48s, M-49s,
KM-84s, KM-56s, Electro-Voice RE-15s, RE-16s, RE-20s; Sony
ECM-50s, C-500s, C-55s; RCA 44s, 77s; ELA-251's; AKG 414,
105 mikes total.

Instruments Available: Steinway baby grand, Baldwin 9' grand,
Steinway 5' G 1240, Hohner D-6 clavinet, stereo Fender Rhodes,
Wurlitzer electric piano, Celeste, Zucker electric harpsichord,
Deagan vibes, manimba, Hammond organ with B-3 Leslie.

Rates: Available upon request

**** THE MUSIC PLACE

1817 Oxmoor Rd., Birmingham, AL 35209

(205) 871-4221, 879-5060

Owner: Center Corp

Studio Manager: Randy Richards

Engineers: Jerry Masters, Mike Guerra

Dimensions of Studios: 27' x 57' x 16', also live room 11' x

23' x 9' 10", drum room: 10' x 10' x 9'

Tape Recorders: Studer A800 24 track, Studer A-80 RC 2 track,

ATR 100 2 track Ampex

Mixing Consoles: Neve w/class A electronics, 32 in x 32 out.

Monitor Amplifiers: Yamaha P2200, ADS 200's

Monitor Speakers: UREI 813, JBL 4311, Auratone

Echo, Reverb, and Delay Systems: EMT stereo plate, Lexicon
224

Other Outboard Equipment: Harmonizer, Prime Time, API
EQ's, Kepelex, ADR Vocal Stressors, 1176 limiters, LA 2A limiters,
dbx, Dolby on 2 tracks

Microphones: AKG's, Neumann, Sennheiser, Sony, Shure,
PZMs, Studer SKM-520, E-V RE-20, RCA 77 DX, 44

Instruments Available: 2 complete drum sets, concert toms, 7'
8" Yamaha grand, 6' 9" Kawai grand, Hammond B-3 organ
w/Leslie, clavinet, Rhodes 88, Jenco vibes, congas, MiniMoog
and Prophet available, guitars and amps

Rates: On request

Extras: We have extensive acoustical control in our main room
and a totally LEDF. designed control room

**** OAK VALLEY RECORDING STUDIO

105 Oak Valley Dr., Nashville, TN 37207

(615) 227-9404

Owner: Henry Slaughter

Studio Manager: Henry Slaughter

**** EDDY OFFORD STUDIOS

also REMOTE RECORDING

P.O. Box 90903 (1493 Jefferson St.), Atlanta, GA 30364

(404) 766-5143

Owner: Eddy Offord

Studio Manager: Valma Valle

Engineers: Eddy Offord, Chuck Allen

Dimensions of Studios: 10,000 sq. ft.

Tape Recorders: MCI JH-100 24 track, MCI JH-110 2 track;

Stellamaster 2 track.

Mixing Consoles: Neotek Series III, 28 in x 24 out; Neotek Series

III-C, 36 in x 24 out.

Monitor Amplifiers: Crown DC 300A, D-75's (phones).

Monitor Speakers: JBL 4350's, JBL 4311's, MDM TA3's

Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb;

Klark-Teknik DN34; AKG BX20 delay, survival projects.

Other Outboard Equipment: Dolby noise reduction; NTP

limiters; Barth EQ; UREI limiters and compressors; Eventide

Digital Delay, Flanger Harmonizer, and Phaser

Microphones: Schoeps, Neumann, Shure, Beyer, Electro-Voice,
PZM, and transformerless active direct boxes. We also have a unique
headphone system (patent pending) that allows each musician
to mix their own phones.

Instruments Available: Steinway B piano, Moeller pipe organ.

Rates: Available upon request.

Extras: Kitchen services available, game and video rooms planned,
guest passes available for American Fitness Center. With 200
theater seats inside, studios are video and radio broadcast
capable. Accommodations can be arranged for out of town
visitors.

Direction: Eddy Offord produced 7 albums by Yes and
engineered 4 albums by Emerson, Lake & Palmer. Melody Maker
Top Ten Producers list ten years in a row. We are unlike any other
studio in the business in that there is no physical barrier separating
the musicians and the board. Located in 40 year old East Point
Theatre, Eddy Offord Studios has an ambience that must be seen
to be appreciated. We are totally musician oriented and dedicated
to technical excellence and comfort.

24 TRACK The Southeast

**** POLLYFOX 24 TRACK RECORDING STUDIO also REMOTE RECORDING

38 Music Square East, Rm. 212, Nashville, TN 37203

(615) 244-5539

Owner: Glen Fox

Studio Manager: Glen Fox

**** QUADRADIAL CINEMA CORP.

14203 N.E. 18th Ave., No. Miami, FL 33181

(305) 940-7971, 940-7972, 940-7978, 940-7994

Owner: Robert M. Ingna, Mary A. Shahan, Keith W. Shahan

Studio Manager: Mary A. Shahan

Extras: Creative art director & advertising dept., photography
lab & photographer, kitchen, dining and recreational areas, 19"
Sony Trinitron color television & Betamax.

Direction: Sex, drugs, rock 'n' roll. "Fix It In The Mix," "It's A
Crazy Business," "More Bass!"

**** QUADRAFONIC SOUND STUDIO

1802 Grand Ave., Nashville, TN 37212

(615) 327-4568

Owner: Renken Inc

Studio Manager: Joe Gayden & Betty Sanford

Engineers: Steve Gostree, Craig Claigurner, Kevin Nemo,
Jimmy Stroud, Willie Pevear

Tape Recorders: Studer A-800 24 track, Studer A-80 1/2" 2
track, Ampex ATR 100 2 track; Ampex 440 2 track; Revox 1/4
track; Revox 1/2 track; Sony digital 2 track

Mixing Consoles: MCI 500 (modified to board), 32 in x 32 out.

Monitor Amplifiers: McIntosh 2300, MDM 4's

Monitor Speakers: Big Reds, JBL 4310's, Technics SBX 30,
Advents, Auratones

Echo, Reverb, and Delay Systems: (2) EMT plates, (2) Time
Lines, Sony digital reverb.

Other Outboard Equipment: Eventide Harmonizer; (2) dbx
160s; Teletronix LA2As; (2) Quad/Eight limiters; (2) LA4s;
Orban/Parasound De-Esser; (4) Audio Design sweep equalizers;

(4) ADR F-300s; (2) ADR compressors; (2) parametric equalizers;
(2) dual gates; Prime Time; (2) ADR Vocal Stressors; Marshall
Time Modulator; Kepelex; Gain Brain; (4) Sphere equalizers.

Microphones: Shure, AKG, Neumann, Beyer, Electro-Voice,
Sony. A range of tube mics.

Instruments Available: Hammond B-3, Hohner clavinet,
Hohner pianet, Steinway grand, Wurlitzer electric piano, Fender
Rhodes, tack piano, Allen harpsichord, Hohner hip piano, Leslie
organ

Rates: \$125/hr, negotiable.

**** REFLECTION SOUND STUDIOS

also REMOTE RECORDING

1018 Central Ave., Charlotte, N.C. 28204

(704) 377-4596

Owner: Wayne Jernigan

Studio Manager: Jane Stowe

Engineers: Steve Haigler, Mark Williams, Wayne Jernigan,
Chip Garrett—Maintenance engineer

Dimensions of Studios: Studio A: 32' x 45' x 16' ceiling,

Studio B: 10' x 8', Studio C: 28' x 24' x 12' ceiling.

Dimensions of Control Rooms: Control A: 16' x 18', Control

B: 12' x 15', Control C: 14' x 18'.

Tape Recorders: (2) MCI JH-24 w/Autolocator III 24 tracks; (2)
Ampex ATR-102 2 tracks; (2) Ampex 440; Otari MX5050 B
track; (2) Otari MX5050 1/4 tracks

Mixing Consoles: Studio A: MCI JH-636 automated, 36 in x 36
out, Studio B: Sound Workshop 1280, 12 in x 8 out; Studio C:
Trent Series 80, 32 in x 32 out.

Monitor Amplifiers: BGW, AB Systems

Monitor Speakers: 1-A1 monitors w/TAD components, Altec 604
w/Mastering Lab Crossover, JBL, KEF, ROR.

Echo, Reverb, and Delay Systems: EMT, Lexicon 224, AKG
BX-20, DeltaLab DL-1, DeltaLab DL-2.

Other Outboard Equipment: UREI 1176 limiters; dbx 900
frame w/noise gates; de-essers & limiters; dbx 160, 162, 165;
EXR Exciter; Loft Analog Delay; White 1/3 octave EQ; Dolby noise
reduction

Microphones: Neumann U-67, U-87, U-64, U-47; AKG 414,
452, 224, 202, Shure SM-7, SM-57, SM-54, SM-56; Sennheiser
421, 441; E-V RE-20, RE-15, RE-16; RCA DX-44.

Instruments Available: Yamaha piano, Kawai piano, Sonor

drums, stereo Fender Rhodes, Wurlitzer, ARP Omni, clavinet,
Tack piano, Fender guitar amps, Musser vibes, concert toms,
congas, Hammond B-3 w/Leslie.

Rates: Available upon request.

Reflection Sound Studios
Charlotte, N.C.



**** ROXY RECORDING THEATER

827 Meridian St., Nashville, TN 37207

(615) 227-0920

Owner: RRT, Inc.

Studio Manager: Brenda Bridges, Booking—Donna Bridges.

Engineers: Fred Hill, Chief Mixer—Bruce Albertine.

Dimensions of Studios: A: 30' x 85' includes 280 seat theater
w/25' x 40' stage), AA: 35' x 40'

Dimensions of Control Rooms: A: 30' x 35', AA: 20' x 28'

Tape Recorders: A: Ampex 300 Series mono/2/4/8 track, MCI
JH-114 24 track; AA: MCI JH-114 24 track

Mixing Consoles: A: Neumann Solid State, 24 in x 24 out; AA:
MCI 428, 28 in x 24 out

Monitor Amplifiers: McIntosh

Monitor Speakers: Altec, Electro-Voice, JBL

Echo, Reverb, and Delay Systems: AKG BX-20, EMT 140ST
plates, Prime Time.

Other Outboard Equipment: Collection of vintage tube and
passive equalizers and limiters

Microphones: Neumann, AKG, RCA, Electro-Voice, Shure,
Altec, Western Electric; tube mics available

Instruments Available: Yamaha G-1 grand piano, Hammond
'M' w/Leslie, Gulbransen theater organ, Baldwin upright piano,
Ludwig standard drums

Rates: \$100/hr. Call for block booking

**** SCRUGGS SOUND STUDIO

2828 Azalea Place, Nashville, TN 37204

(615) 383-7994

Owner: Randy Scruggs and Steve Scruggs

Studio Manager: Tricia Johnson

Engineers: Tom Brown, Steve Scruggs, Randy Scruggs

Dimensions of Studios: 26' x 35' w/cathedral ceiling.

Dimensions of Control Rooms: 12' x 16'

Tape Recorders: MCI JH-24 transformerless 24 track, MCI
JH-110 1/2" transformerless 2 track, MCI JH-110 1/4"
transformerless 2 track; Sony cassette deck.

Mixing Consoles: MCI JH-636 w/full automation & VCA group-
ing, 28 in x 24 out.

Monitor Amplifiers: McIntosh 2300, Crown DC-300, Crown
DC-150, BGW

Monitor Speakers: Altec 604E Big Reds w/Mastering Lab
Crossovers, JBL 4311's, MDM: 4 mixdown monitors, Auratones,
Bollvers

Echo, Reverb, and Delay Systems: EMT 250 digital reverb,
Custom plate reverb, Lexicon Prime Time.

Other Outboard Equipment: Vocal Stressor, Audioarts stereo
parametrics, dbx compressor/limiters, MXR Phaser, Eventide
Harmonizer, API 550-A EQ; 24 tracks dbx noise reduction, Or-
ban Sibilance Controller.

Microphones: Neumann U-87, KM-84, U-47, AKG 414's, 451's,
452's; Sennheiser 421's; Sony condensers; Calrec condensers;
Shure SM-57's, SM-58's; Electro-Voice RE-20's

Instruments Available: Yamaha 7 1/2" grand piano, stereo
Rhodes 88 electric piano, AEP synthesizer, Ludwig wood-shell
drums, various assortment of amplifiers, musical instruments,
Hammond A-100 organ w/Leslie, other equipment available on
rental basis.

Rates: \$130/hr including engineer.

**** SONGBIRD STUDIO

also REMOTE RECORDING

1715 DeFoot Ave., Atlanta, GA 30318

(404) 351-5955

Owner: Richard Head

Studio Manager: Richard Head.

Engineers: Richard Head, Lou Frish
Dimensions of Studios: 30' x 24'
Dimensions of Control Rooms: 15' x 12'
Tape Recorders: Ampex MM 1100 w/1200 electronics 16/24 track, Techniques 1520 2 track, Ampex 440B 2 track; Techniques 1506 2 track, Tascam 80-8 8 track; Tascam 25-2 2 track
Mixing Consoles: Sound Workshop 1600, 28 in x 24 out w/full "Arms" automation—noise gates on all channels, Tapco C-12 for remote recording

Monitor Amplifiers: Crown DC 300, Tapco CP120

Monitor Speakers: JBL 4311, Auratones

Echo, Reverb, and Delay Systems: Ursa Major digital reverb, Lexicon Prime Time delay, Ibanez AD 220 analog delay

Other Outboard Equipment: UREI LA-4 compressor/limiters, LT Sound Arc II compressor/limiter/expander, dbx 163 compressor limiters, ICP pre-amp, SAE parametric, 26 channels dbx
Microphones: Neumann (2) KM-84, (2) U 64 (tubes), Sony C-48's, ECM-22's; Electro-Voice RE-20's; Sennheiser 421's, 441's, Crown PZM's, Shure SM-57's

Instruments Available: ARP Omni, ARP Axse, ARP Avator, Fender Rhodes with Satellite speakers, Hohner clavinet, Univox organizer (for Hammond B-3 sound), Wurliizer acoustic piano

Rates: Call for rates

Extras: Studio has a great atmosphere with 20 foot cathedral type ceiling main room drum booth and vocal booth. It has a great acoustical balance between live and dead surfaces utilizing both hand wood surfaces along with the newly developed sonex material

Direction: Songbird has been recently upgraded to a full 24-track facility with automated mixdown. For the last 5 years we have been competing with the "big studios" with semi-pro gear and standing our ground. We have placed cuts for two years in a row on the local 96 rock Homecooking Album which last year sold 20,000 copies—both done on "semi-pro" gear. We plan to go onto even bigger accomplishments now that we are a full 24 track facility

•••• **SOUND EMPORIUM RECORDING STUDIOS, INC.**
 3102 Belmont Blvd., Nashville, TN 37212
 (615) 383-1982

Owner: Larry Butler, Roy Clark, Jim Williamson

Studio Manager: Jim Williamson

Engineers: Jim Williamson, Gary Laney, John Abbott, Cathy Potts, Bo Stewart (staff), Harold Lee, Billy Sherrill, Charlie Tallent, Garth Fundis (independents)

Dimensions of Studios: Studio A 33'W x 39'D x 22'H, with

24 TRACK The Southeast

string alcove 15' x 20', Studio B: 14'W x 23'D x 9'H, with 11' x 21' dog-leg and 10' x 7' drum booth, Studio C: 35'W x 35'D x 18'H, including drum booth

Dimensions of Control Rooms: Studio A 19'W x 19½'D,

Studio B: 15'W x 17'D, Studio C: 15'W x 17'D

Tape Recorders: Studer A-80 VU II 24 track (16 track capability), Studer A-80 RC 2 track, Studer B-67 2 track, Ampex AG-440B 4 track

Mixing Consoles: Harrison 3232AB (Studio A), Harrison 3232C (Studio B), Harrison MR2 (Studio C)

Monitor Amplifiers: Altec, BGW, Crown, McIntosh, Sony

Monitor Speakers: The ONES cabinets by John Gardner with Gauss woofers and TAD drivers

Echo, Reverb, and Delay Systems: EMT 140 stereo plates (two per studio), Quad/Eight spring reverb, acoustic echo chambers (two 8' x 10' x 35' chambers with nonparallel walls)

Other Outboard Equipment: Dolby (24 tracks in all studios), DDL, noise gate harmonizer, phaser, flanger, Vocal Stressor limiter/compressors, digital metronome, bass and guitar amplifiers, Prime Time

Microphones: AKG, Electro-Voice, Neumann, PZM, RCA, Sennheiser, Sony Studer, Superscope, PML, Wright, Shure

Instruments Available: Fender Rhodes electric pianos (3), Wurliizer electric pianos (3), Hammond B-3 and C-3 organs, clavinet Celeste, Chickering grand piano (Studio A), Steinway grand pianos (Studios B & C), Tack pianos (Studio C), tympani, congas, vibes, manimba, orchestra bells, MiniMoog, harpsichord

Rates: Upon request

Extras: Pre set string alcove (Studio A), 15 and 30 ips capabilities

in all studios. Other instruments and equipment available upon request—ask us!

Direction: Paul Anka, Julie Andrews, Moe Bandy, Debby Boone, Sammy Davis Jr., John Denver, Terri Gibbs, Marshall Tucker Band, Little River Band, Don McLean, Jerry Reed, Kenny Rogers, Joe Stampley, Don Williams. During 1981, Sound Emporium averaged 11% of the singles and 15% of the albums on the country charts

•••• **THE SOUND LAB**

1708 Grand Ave., Nashville, TN 37212

(615) 327-4744

Owner: David Kent

Studio Manager: Jim Cotton; Jean Roberson, General Mgr

Engineers: Jim Cotton, chief engineer, Joe Scate, Pat Holt,

Chuck Amley

Dimensions of Studios: 24' x 32' x 25'

Dimensions of Control Rooms: 12' x 24' x 8'

Tape Recorders: Studer A 80 MK III 24 track, Studer 2 track, ATR 2 track

Mixing Consoles: Fleckenger custom, 32 in x 32 out, MCI 416, 24 in x 24 out

Monitor Amplifiers: BGW Bi-Amp

Monitor Speakers: JBL 4320, Altec 605 ES (Big Reds), Auratones (White EQ), MDM 4

Echo, Reverb, and Delay Systems: (2) Live acoustic silos, EMT 240 stereo

Other Outboard Equipment: Dolby harmonizer (2) Time Cubes (4) UREI limiters (3) dbx 160 limiters Teletronix LA2A Gain Brains; octave EQ, Lexicon Prime Time, DL 2, all name brand outboard equipment available on request

Microphones: Neumann U-87's, U-48, U-47, Sennheiser 421's, KM 86's, KM-84's; AKG 451, 224's, RC-A 77-DX, 44 DX, Beyers, Shure 57's, E-V RE 20's, RE-16's

Instruments Available: 7 Steinway, Hammond B 3 Allen harpsichord, Fender amps, Ludwig drums, Fender Rhodes, Wurliizer, various Latin percussion instruments, Peavey bass amp, Honky

Rates: Available on request

Extras: Funk

Direction: Ron Hafkine, Dr. Hook, Helen Reddy, Mick Fuhrman, Manhattan Transfer, Emmy Lou Harris, Brian Ahern, Billy Joe Shaver, Ray Stevens, Eddie Rabbit, Wood Newton, Dillard & Boyce, Nantucket, Chrsty Lane

“Engineers Who Listen To Both You And The Music...”

AUDIO IMAGE Recording Studio knows that engineering is both an art and a business. That's why our engineers listen to our clients, and do their best to get what you want on tape.

Along with professional engineering, here's what you'll get at the new AUDIO IMAGE:

- 8- and 16-track recording (Soon to be 30-track).
- Completely re-designed control room with ear-level monitoring.
- New string and horn ensemble room.
- Fully-enclosed drum room.
- Complete selection of outboard equipment.
- Piano, electronic keyboards, and drums available at no extra cost.

AUDIO IMAGE RECORDING STUDIO

3685 N. Federal Highway, Pompano Beach, Florida 33064 (305) 943-5590

•••• THE SOUND ROOM, INC.
325 Patterson Ave., Fort Oglethorpe, GA 30742
(404) 866-2432

Owner: Steve Mullinix

Studio Manager: Steve Mullinix

Direction: Our studio wants to be a source of creativity. Each musician and singer has something unique and special to offer and we work to develop that individuality. We hope to be a part of developing trends instead of following them. Our production effort is really an attempt to bring out the absolute best in each performer. In guiding, advising, and helping each person who comes our way—our clients become our friends. No one knows who will be tomorrow's star, so we professionally treat everyone as having that potential. We consult with our clients about every aspect of the business, helping them to develop their career with the right steps in a specific direction. In addition to having the newest concepts in acoustic design (giving the term "live" recording a new meaning), we educate the music community about the reasons for our concept. We let the client get hands-on experience in their own mixdown. We also offer a 10 week course in recording/engineering. Other services include complete songwriter services (custom sheet music, lead sheets, etc.) sound equipment sales and jingles. Our equipment list is growing ever so rapidly—for our object is to offer the absolute best in new technology.

•••• SOUNDSHOP, INC.

1307 Division St., Nashville, TN 37203
(615) 244-4149

Owner: Soundshop, Inc.

Studio Manager: Craig Deitchmann

•••• SOUND STAGE

10 Music Circle South, Nashville, TN 37203
(615) 256-2676

Owner: 8 owners—Incorporated

Studio Manager: Pat Meyer

Engineers: Chief Engineer Brent King, Maintenance Supervisor: Gordon Evans, Engineers: Steve Fralick, Ron Treat, Steve Tillisch, Warren Peterson

Dimensions of Studios: Studio A (front stage): 48' x 30'; Studio B (back stage): 30' x 20'

Dimensions of Control Rooms: Front stage 15' x 30', Back stage: 24' x 24'

Tape Recorders: Studer A-800 24/16 track, Studer A-80 1/2" and 2" 24/2 track, Studer A-80 1/4" 2 track, Studer B-67 1/4" 2 track; upon request JVC Digital System 2 track

Mixing Consoles: Neve w/Necam 8068, 32 in x 16 out, Trident w/65k automation TSM, 32 in x 24 out

Monitor Amplifiers: AB Systems, McIntosh, BGW, Crown

Monitor Speakers: George Auggsperger Custom Monitors, JBL 1176s, Auratone, Bolivar, JBL 4311, Yamaha NS10.

Echo, Reverb, and Delay Systems: EMT 251 digital reverb, (4) EMT's, EMT Gold Foil, Lexicon Delta T, Lexicon Prime Time, Eventide Digital Delay, Cooper Time Cube

Other Outboard Equipment: Eventide Harmonizer, UREI, Teletronix, dbx, Neve limiters, ADR Vocal Stressors; ADR Scamp rack, Kepex, Gain Brain, Pultec tube EQ, Orban De-Esser, UREI; Soundcraft Parametrics, etc.

Microphones: Neumann U-47, U-87, KM-86, KM-84, KM-54, AKG 414, 451, 452, D-12, D-224, Sennheiser 421, 441, Sony 33-P, 22; Beyer M-69; Studer SKM5U, SK-S501; PZM plates, E-V RE-16, RE-20

Instruments Available: 9' C. Bechstein, 7' Steinway, Hammond B-3, Rhodes stereo 88, 73. Hohner clavinet, Wurliizer Star Tack piano.

Rates: \$130/hr w/engineer, \$160/hr mixdown w/Necam.

•••• SOUND TRACK

2830 Dogwood Place, Nashville, TN 37204
(615) 297-2293 or 269-0694

Owner: Wayne Edmondson

Studio Manager: Ken Laxton

•••• SOUTHERN TRACKS RECORDING

1224 Fernwood Cir. N.E., Atlanta, GA 30319
(404) 231-9319, 231-9489

Owner: Bill Lowery

Studio Manager: Mike Clark

Engineers: Doug Johnson, Mike Clark, Janet Synder

Dimensions of Studios: 22' x 58'

Dimensions of Control Rooms: 20' x 16'

Tape Recorders: Ampex 1200 24 track, Studer A-80 2 track; Ampex 440 2 track, Aiwa cassette 6700

Mixing Consoles: Harrison 2824, 28 in x 24 out.

Monitor Amplifiers: Crest, BGW, AB, Crown.

Monitor Speakers: JBL 4320, 4313; Auratones

Echo, Reverb, and Delay Systems: Lexicon 224 digital, EMT, Lexicon Prime Time.

Other Outboard Equipment: Orban parametric, Vocal Stressor, Eventide Harmonizer, dbx 165s and 160s limiters, White and UREI EQs, Kepex's, flange, Godwin exciter

Microphones: Neumann U-87s, U-47s, U-84s, U-88s; AKG 414s, 452s, Sennheiser 441s, 421s, Shure 57s, 53s

Instruments Available: Ludwig drums, Rhodes Mark II, clavinet, Wurliizer, Yamaha grand, Prophet 5, MiniMoog, percussion instruments.

Rates: \$135/hr, block booking rates on request.

24 TRACK The Southeast

•••• S.R.S. (SOLID ROCK SOUND RECORDING STUDIO)

also REMOTE RECORDING

536 Huffman Rd., Birmingham, AL 35215
(205) 833-6906

Owner: Noah L. White

Studio Manager: Noah L. White

•••• STUDIO ONE

3684 Oakcliff Industrial Ct., Doraville, GA 30340

(404) 449-5147

Owner: Buddy Blue, Bill Lowery, Jr. Cobb

Studio Manager: Rick Maxwell

•••• STUDIO FOUR

also REMOTE RECORDING

1918 Wise Dr., Dothan, AL 36303

(205) 794-9067

Owner: Jerry Wise

Studio Manager: Steve Clayton

Engineers: Jerry Wise, Steve Clayton

Dimensions of Studios: 30' x 22' x 15' w/10' x 10' x 10' drum room

Dimensions of Control Rooms: 20' x 15' x 10'

Tape Recorders: MCI JH-24-24 track; MCI JH-110B 2 track, Technics 1500 2 track, Sony TC-353D 2 track, Tascam 80-8 B track

Mixing Consoles: Tangent 3216, 24 in x 24 out

Monitor Amplifiers: Phase Linear 700, Tapco CP120

Monitor Speakers: JBL 4333, Auratone 5C, Klipsch La Scala

Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb, Lexicon Prime Time, Eventide Harmonizer 910, EMT 140 plate

Other Outboard Equipment: dbx limiter/compressors, dbx noise gates, Mutron B-Phase

Microphones: Neumann U-87s, RCA 77-DX, E-V RE-20, PL-77, PL-80, PL-91, RE-16; Shure SM-57, SM-58; Sony ECM-22P, Sennheiser 421U

Instruments Available: Yamaha grand piano, Rhodes electric piano, Wurliizer electric piano, Hohner clavinet; Roland synthesizers, Ludwig drums, Peavey, Fender, Ampeg guitar amps, Fender and Guild guitars; ARP String Ensemble; Orchestron.
Rates: 24 track: \$75/hr, 2 track & mix: \$35/hr, block rates available. Stereo cassette duplication (prices on request)

•••• STUDIO "7" RECORDING CO.

also REMOTE RECORDING

P.O. Box 57, Smith Station, AL 36877

Owner: Frank B. Gowan

Studio Manager: Arnold Massey

•••• THRESHOLD RECORDING

also REMOTE RECORDING

410 Elm Ave. S.W., Roanoke, VA 24016

(703) 325-2539

Owner: J. Harold Thompson, F. Howard Beasley

Studio Manager: F. Howard Beasley

Engineers: J. Harold Thompson

Dimensions of Studios: 30' x 25'

Dimensions of Control Rooms: 20' x 12'

Tape Recorders: Ampex 1100 16 track; Ampex 440B 8 track, also (2) 440B 2 track and mono machines.

Mixing Consoles: Loft Modular Devices 440, 24 in x 16 out

Monitor Amplifiers: AB Systems

Monitor Speakers: Electro-Voice Sentry III, Altec 9845, Auratones

Echo, Reverb, and Delay Systems: AKG BX-20 reverb, Loft Modular Devices analog delay (2), Eventide Digital Delay 1745A

Other Outboard Equipment: UREI 1176 limiters, Ashly SC-50 limiters, Gain Brains, Ashly SC66 parametric EQ, Allison Kepex, Orban/Parasound stereo synthesizer, Orban/Parasound D-Esser.

Microphones: Neumann U-87; AKG 451; Shure SM-58, 57; E-V RE-15, PZM 130, Studer SKM 5U

Instruments Available: Steinway grand piano, Hammond B-3 organ, Fender P bass, Ludwig drums, clavinet, Rhodes 88.

Rates: \$50/hr 8 track; \$35/hr 2 track and mono

•••• TRAKS, INC.

1943 N.E. 148th St., North Miami, FL 33181

(305) 940-4848

Owner: Traks, Inc.

Studio Manager: Robert Kutchera

•••• TRI STATE RECORDING CO.

2006 E. Center St., P.O. Box 3860,

Kingsport, TN 37664

(615) 246-9701

Owner: Tilford Salyer

Studio Manager: Rick Salyer

•••• TRIAD RECORDING STUDIOS, INC.

also REMOTE RECORDING

5075 N.E. 13th Ave., Ft. Lauderdale, FL 33334

(305) 771-1431

Owner: Brandon Productions

Studio Manager: Michael Laskow, General Mgr., Douglas Weynck

Engineers: Michael Lakow, Vincent Oliveri, Robert Corti
Dimensions of Studios: 45' x 23' x 20' Pyramided ceiling sound diffusion system.

Dimensions of Control Rooms: 21' x 14' x 13', diffused to 9' at console

Tape Recorders: (2) MCI JH-110B 2 track, MCI JH-110B-14-4 track; (2) MCI JH-114-24 track; Technics 1506 1/4 track/1/2 track, (5) JVC DD-5J cassette decks

Mixing Consoles: MCI JH-556-56L/M, 56 in x 56 out w/8 echo returns, 64 automated channels w/Plasma Display and Spectra Vue

Monitor Amplifiers: JBL 6233 "Ice Cubes", McIntosh 2100's; Crown D-60's.

Monitor Speakers: UREI 813 time Aligns, JBL 4311's, JBL 4333's, Auratone 5-C cubes, Mini Reds

Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb, Lexicon 93 Prime Time, (2) live echo chambers 11' x 13' x 15' x 9' sloped to 20'

Other Outboard Equipment: dbx 160 compressor/limiters, dbx 165 over easy, UREI LA-4 compressor/limiters, UREI LA-2 tube limiter, Eventide 910 and 949 Harmonizers, Eventide Omnipressor, dbx 900 Series noise gates and de-esser, Dolby noise reduction, Orban parametric EQ, UREI 527-A graphic EQ's.

Microphones: Neumann U-87's, U-47's, AKG 414-EB, Sennheiser 441, 421; Sony ECM-56P, ECM-50, ECM-50, ECM-33P; Electro-Voice 635A, RE-20; Shure SM-57, SM-546; JVC Binaural

Instruments Available: Yamaha 7'4" grand piano, Ludwig drum kit, Hammond C-3 w/Leslie, amplifiers, guitars, etc., upon availability. Any instruments through rental.

Rates: Upon request

Extras: Total privacy, raquet ball courts with jacuzzis etc., nearby beaches, restaurants, hotels, fishing, boating, Jai Lai

Direction: Neil Young, Marshall Tucker Band, Cheap Trick, Melanie, Pat Travers, Bob Marley, Dr. Hook, Pat Benatar, Eddie Money, Helen Reddy, Smokey Robinson, Ronnie Montrose, and many more. Complete creative environment total privacy with all the leisure accoutrements and "state-of-the-art" technology to give the artist the atmosphere and capability for expression. Members of SPARS. Recent updates include the MCI 556 console (48 tracks) and video capability to maintain Triads world class standards

•••• WEBB IV RECORDING STUDIO

2107 Faulkner Road, N.E., Atlanta, GA 30324

(404) 321-5993

Owner: Ilene Berns

Chief Engineer: Ed Seay

Engineers: Richard Wells, Asst. Engineer Tommy Cooper

Dimensions of Studios: 2,450 sq ft with and 18 ft ceiling

Two isolation booths: Large booth 102 sq ft., small booth, 21 sq ft.

Dimensions of Control Rooms: 19 1/2' x 19 1/2'

Tape Recorders: Studer A-80 VU 24 track w/dbx and Dolby noise reduction, Studer A-80 VU 2 track 15/30 ips w/Dolby A; Studer A-80 RC 2 track 7 1/2/15 ips; Ampex AG440B 2 track, 7 1/2/15 ips w/dbx; Revox B77 1/4 track

Mixing Consoles: Sphere Eclipse Type C, 32 in x 24 out w/Allison automation

Monitors: JBL 4350, biamped with Studer A68 and Crest 3500; JBL L-100, 4313, driven by Yamaha P-2200 or AB410, Auratones, ROR, driven by AB 205

Echo, Reverb, and Delay Systems: EMT 250 digital reverb, EMT 140 plate reverb, 2 live chambers

Other Outboard Equipment: (3) UREI 1176 limiters, (2) UREI LA-3A limiters, ADR Vocal Stressor, Orange Country Vocal Stressor, (4) dbx 160, 162, 165 limiters, Allison Gain Brains, Allison Kepexes, (2) Pandora limiters, Eventide Harmonizer 949, Marshal Time Modulator, Lexicon Prime Time, Lexicon Delta T, Eventide Instant Phaser, Audioarts parametric EQ, Orban Parametric parametric EQ, 3 channel Orban De-Esser, Pultec EQ, UREI 527-A graphic EQ, EMT 250 digital reverb, EMT 140 plate reverb

Microphones: Neumann U-87's, U-89's, U 47 FET's, MN-84's, KM-86's, KM-88, AKG 414's, 451/452's, C-24 stereo tube, D-224's, D-1000, Sennheiser 421's, 441's, Schoeps (Studer) SKH-54's, Shure SM-56, 57, 58; Electro-Voice, RE-20, RE-15, RE-10, 635

24 TRACK The Southeast

Instruments Available: Baldwin 9' grand piano, Chickering 9' grand piano, Fender Rhodes electric piano, Wurlitzer electric piano, RMI electric piano, Hammond B3 organ w/Leslie, Hohner D6 clavinet, Hohner Pianet, Oberheim OB-X polyphonic synthesizer, ARP Odyssey synthesizer, ARP Pro Soloist synthesizer, MiniMoog synthesizer, Univox Strinman, Crumar string synthesizer, Synclairs, xylophone vibes, drums, miscellaneous percussion, Music amps, Marshall, Fender Twin, Fender Super Reverb, Fender Deluxe, Acoustic, Peavey, Ampex

Rates: 24 track recording and mix \$330/hr. 2 track editing, sequencing and playback \$50/hr. Please call for special project rates.

•••• WISHBONE RECORDING STUDIO
P.O. Box 2631, Muscle Shoals, AL 35660
(205) 381-1455

Owner: Terry Woodford, Clayton Ivey
Studio Manager: Lee Daley
Engineers: Lee Daley (Chief), Terry Woodford. Freelance engineers on call.

Dimensions of Studios: 1,360 sq ft
Dimensions of Control Rooms: 576 sq ft
Tape Recorders: MCI JH-24 w/Autolocator III 24 track, Ampex ATR 100 w/remote 2 track, MCI JH 110 w/remote 2 track, Scully 280 2 track, Hitachi D-E95 w/remote cassette

Mixing Consoles: MCI JH-636 w/automation and parametric EQ modules, 28 in x 24 out

Monitor Amplifiers: BGW, Bi-Amp, Crown, SAF

Monitor Speakers: Westlake JHL, Auratones, Altec

Echo, Reverb, and Delay Systems: EMT stereo plate, stereo acoustic chamber

Other Outboard Equipment: UREI 1176 (2), UREI LA 3A (2), ADR Vocal Stressor, Allison Gain Brain (4), Allison Kepex (4), UREI 565 filter set, Orban 622 parametric, Eventide Harmonizer, Eventide Instant Flanger, Lexicon Prime Time; devices by Roland, MXR and more.

Microphones: Neumann U-47, U-87, KM-86, KM-84, KM-88, Shure SM 57, SM-81, SM 7, 545, AKG C-414, C-412, C-452, Electro-Voice RE-20, RE 15, RE-10, CS-15P, Sennheiser MD-42i, Studer SKM-5-U

Instruments Available: Hammond A-105 organ w/Leslie, Yamaha conservatory grand piano, Rhodes piano, Wurlitzer electric piano, Hohner D-6 clavinet, Oberheim OB-1 synthesizer, ARP 2600 synthesizer, Musser vibes, Rogers drums w/Pearl rotoms, amps by Fender, MESA/Boogie, Music Man, Gon Bops congas, misc. percussion equipment, quad syndrums

Rates: Block rates are available, please call studio manager

Extras: Affiliates: Song Tailors Music Company (BMI), I've Got The Music Company (ASCAP), Washbone Production Company, Flying Colors Video Production Company, Flight Log Cabins resort motel adjacent to studio with tennis court, horseshoe pit, playground. Washbone branch offices in Nashville and Los Angeles

Direction: Artist who have recorded at Washbone include: Mac McAnally, Hank Williams Jr., Wayne Newton, Muscle Shoals Horns, Thelma Houston, Millie Jackson, Hot, Brenda Lee, Ruth Buzzi, John Prine, Cherry Sisters, Robert Byrne, Charlie Daniels, Gary Stewart, Dickie Lee, various other R&B, country, bluegrass, rock and gospel acts

•••• WOODLAND SOUND STUDIOS
also REMOTE RECORDING
1011 Woodland Street, Nashville, TN 37206
(615) 227-5027

Owner: Ernie's Record Mart, Nashville, TN

Studio Manager: Glenn Snoddy

Engineers: David McKinley, studio supervisor, Russ Martin, Rick McCollister, Steve Ham, Ken Corlew, Ken Cribble, recording engineers Denny Purcell, mastering supervisor Hank Williams, mastering engineer Mike Porter, technical supervisor, Kerry Kopp, technical engineer, Carol Sullivan, mastering secretary Sunny Smith, receptionist & secretary, Ema Jean Bean, traffic manager

Dimensions of Studios: A 45' x 35' x 22'; B 36' x 24' x 16'

Dimensions of Control Rooms: A 22½' x 17½' x 7'9"; B same as A

Tape Recorders: (2) Studer A80 16 and 24 track, (2) Studer A80 B 2 track, (2) Studer A80-RC 2 track, Studer A 67 1/4 track, Studer B 67 2 track, Studer A 80 pre-listen (2) Ampex 440 4

You Too Can Buy Absolutely The Foremost Recording Equipment From The South's Leading Dealer.



Otari
MX-5050
MKIII-8
1/2" 8 Track



Sound Workshop Logex 8



Sound Workshop Series 40



Otari
MTR-90
2" 24 Track



VALLEY PEOPLE, INC. • Retail Division
2820 Erica Place / P.O. Box 40306 / Nashville, Tennessee 37204
Bob Todrank or Mike Feniello • 615-383-4737

Call for
Price And
Delivery!

track, Ampex 440 8 track, Ampex mono, Studer mastering 1/2" 2 track, Studer mixdown 1/2" 2 track

Mixing Consoles: Neve 8058, 24 in x 24 out, Neve 8078 36 in x 24 out

Monitor Amplifiers: AB systems 410, McIntosh MC2200, MI75, Crown DC300, Altec 128B

Monitor Speakers: THE-1, MDM 4, Westlake TM1, Auratones Altec 9845

Echo, Reverb, and Delay Systems: Echo EM™, AKG Delay Prime Time, DDL

Other Outboard Equipment: UREI digital, metronome, Eventide Harmonizers, Pandora digital time line, UREI 1176 (5 A, 4 B), Eventide Clockworks Instant Phaser, Orban D'Esser 150 or 60, crystal syn. pulse generator, 14KC Signal generator or sync. (for ltr use), Nakamichi 700 III cassette deck, Nakamichi 1000 II cassette decks, 66 channels-Dolby 56 channels-cbx (4 UREI LA4As ADR Vocal Stressor, (2) Lexicon Prime Times

Microphones: AKG C414 EB, C452 E3, D224 E, Altec M 49 Electro-Voice RE 11, RE 15, RE 16, RE-20, RE-50, 635 A, 668, 1751 & 649, Neumann U 87, U 47, U-67, KM 86, M 249RE RM-84, Sennheiser MD 421U, Shure SM-56, SM 53, SM 54 SM-7, Sony ECM-50, ECM-22P, C-55; Studer SKM5 U

Instruments Available: Steinway grand pianos, Hammond organs (B3, C3), Wurlitzer electric pianos, Fender Rhodes pianos, Hohner clavinet, Allen electronic harpsichord, Celeste electronic chimes 1S, vibes, tack piano, latin percussion congas, ARP String Ensemble, set of orchestra bells, studio drums, Fender guitar amps

Rates: On request

Extras: Editing room, editing, tape copies, album assembly, speed change, cassette copies, disc to tape transfer, etc. 2 disc mastering studios with Neumann lathes SX74 cutting head, tunel Westlake monitor systems, Studer playback & copy machines

Direction: Current records: Eddie Rabbit, Brenda Lee, Charlie Daniels, Barbara Mandrell, The Oak Ridge Boys, John Corlie, Billy "Crash" Craddock, Conway Twitty, Paul Williams, Slim Whitman, Tanya Tucker, Carl Perkins, Con Hunley, Barry Goudreau, Robert Gordoni, Donna Fargo, Gail Davies, Terry Bradshaw, Rosanne Cash, Carroll Baker, Tommy Wynette, LaCosta, Mel Tillis, Helen Cornelius, Christy Lane, Gold records on Slim Whitman, Kansas, Ronnie Milsap, Neil Young, Nitty Gritty Dirt Band, Charlie Daniels, Barbara Mandrell, Murry McLauchlan, Carroll Baker, Eddie Rabbit, Oak Ridge Boys (single & album), Platinum records on Charlie Daniels Band, Kansas, Oak Ridge Boys, Eddie Rabbit (2), Triple Platinum on Kansas. Woodland stresses quality of equipment, mixers and maintenance. Two full time maintenance engineers available to complement the highest quality consoles and tape recorders. For dealings with our clients over 14 years has established Woodland as a professional facility with a home like atmosphere.

Changing Your Address?

Planning on moving? Please let us know six to eight weeks in advance so you don't miss a single issue of the MIX. Attach your old address label to this coupon and print in your new address below.

(Please print your new address here)

Name _____
Company _____
Address _____
City _____ State/Zip _____

Mail to:
**MIX Publications, 2608 9th Street,
Berkeley, CA 94710**

THE BONZAI



by Mr. Bonzai

For the past two years Mr. Bonzai has shared with us his memoirs as a recording studio manager. He has revealed his success and his excesses, shown us the unexpected thrills and the unpaid bills, and given us a special insight into the recording industry. After hundreds of sessions recording music for others, he has now embarked on a new life as an independent rock video producer.

His first production with a band called The Incredible Shrinking Heads demanded his entire life savings of six hundred dollars, a loan against his VW and the cancellation of his dental insurance. He risked his money and his molars and the gamble paid off with a modest success on Zeta Cable TV in Los Angeles. The project generated sufficient income to finance Mr. Bonzai's move to Hollywood and the launching of his new career. Join us now as we find our inspired and wide-eyed hero on the threshold of reality.

"OK, let's hustle!" I barked into my megaphone as I cracked my riding crop down on an Anvil case. "We've only got the crew for four hours."

Sarah Bellum, Brian Tumor, and Mickey Libido—"The Incredible Shrinking Heads"—strolled as calm as cucumbers into my living room as I briefed my student video team on the production of their new song, "Human Scenery." We were recording audio with a 24-track remote truck parked in the driveway and shooting a complete video rockumentary from basic tracks to final vocals. I had just moved to Hollywood and my very partially furnished apartment/production studio had perfect concert hall acoustics. The stark urban setting would give me the rock reality I was hoping to capture. I directed my cameramen to follow members of the band around as Brian began to tune his bagpipes and Sarah slipped into her fishnet bodystocking.

The house was a mighty old mansion just a few blocks from Hollywood Boulevard in what was once a posh neighborhood. Built by Zane Grey in the Twenties, its tenants had included CoCo LaVerne, the world famous bubble dancer, Otto Kohlfisch, the German movie director, Monty Schwartz, head writer for "My Little Margie", and most recently, Signory Wicks before she had recorded her first big hit, "Man's Best Friend", and moved on to Bel-Air. I was still receiving fan mail for Signory and in the garage I had found some abandoned life-size cardboard cut-outs of her dressed as an Afghan from her first national tour. The old stucco palace was haunted with showbizz spirit.

In the apartment above me lived Ellenie, an aspiring actress/stuntwoman. You may remember her hair raising performance as the island maiden being eaten in "Kiss of the Giant

Clam." On the top floor lived Madame Sapphola, an astrologer who never left her apartment. We hadn't met yet, but I would occasionally see her standing nude in her picture window overlooking the palm tree-lined avenues below. Our absentee landlord was a stony, mellow guy named Josh who would occasionally drop by to pick up the rent and give us complimentary samples of the gadgets he manufactured for head shops. Josh had made his fortune inventing the popular "Moustache Roachclip", which not only acted as a disguise for the user, but was rarely recognized as paraphernalia.

For the basic tracks we put Sarah and her dulcimer in the living room in front of a giant picture window with a panoramic view of the Capital Records tower and other Hollywood landmarks. Brian was set up in the kitchen with his bass, Mickey and his bagpipes were in the highly reflective bathroom, our session guitarist Zig Worthington and our drummer Chris Heidelberg were in the dining room, and we were using the bedroom as a live echo chamber. We did a quick sound check and laid down the basics in two hours. The video crew roamed around as we proceeded through the beefy synthesizer overdubs and added some incidental glockenspiel riffs. There was still plenty of time for the vocals before the band's departure that night for a gig in Tarzana.

While we were taping some candid footage of Brian and Mickey eating cornflakes with beer and Sarah taking a luxurious bubblebath, my neighbor Ellenie came to the living room window.

"Hi, Mr. Bonzai, what's happening?"

"We're doing a little production for cable TV with this band I'm managing. How's your career going?" I asked.

"A little slow right now—there are *some* stunts I just won't do. I thought

ZONE

I'd build a patio out here in the yard. Can you help me dig out a stump?"

"Sure, I'll be out in a minute. Stay away from the window, though, would you? We're just about to start taping."

Smilin' Deaf Eddie, my old engineer pal, was stringing cables into the living room and setting up mikes while I discussed a few essential shots with Garf, my video director.

"Get Sarah singing with a view of the city behind her." Garf called a huddle and sent his crew scurrying. "Tape this run-through," I added, "We might be able to use some of it."

I went outside where Ellenie handed me a spade and pointed out the stump. "You better duck down. I think you're in the shot," I suggested. I hunched over and put my foot down hard on the shovel and hit a root that turned out to be an ancient water pipe. A ten foot geyser shot up and covered both of us with mud. I grabbed a nearby board and tried to slow down the flow. Ellenie sat on the board and rode like an urban cowgirl.

"Where's the main valve?" I yelled.

"I don't know. Maybe it's in the basement. The door is outside by the garage."

I stood up, realized I was in the shot, ducked down and slipped. I hit the stump with my shin and knocked Ellenie off the board. As I was hopping away I could hear the band singing and laughing. Ellenie was wrestling with the gusner and the mud continued to rain.

I found the old basement door and pried it open. Inside I discovered a dozen bums who had made the room into a cozy little clubhouse. The light from the doorway startled them and their bloodshot eyes pinched shut as they scrambled to their feet. When they saw the mud covered apparition that greeted them, they panicked and scattered like cockroaches, shoving past me in their terrified exit. One

lone duffer remained cross-legged in bliss beneath a large iron valve wheel. "Does this mean the meeting's over?" he mumbled.

I pulled on the rusted wheel, turned it off, and ran back upstairs to see what had happened. The hoboes were slippin' and slidin' as they ran across the yard. The spout had subsided and Ellenie was sitting and giggling in the mud. I ran into the house and found the band relaxing with a six pack.

"This mud's for you," toasted Sarah as they raised their bottles.

I attempted an authoritative tone as muck dribbled off my face. "How'd it go?" I asked.

Garf gave me the details: "Everything went perfectly. The performance was great! No clams or flams and you and Ellenie and the bums running through the background really added another dimension."

"Oh, I'm sure," I said, "but we're going to need a lot more..."

Eddie interrupted me. "The water shorted out all the power in the house. It's a take."

As I was contemplating how we could fix everything in post-production, the phone rang.

"Hello... yes, this is Mr. Bonzai. Yes... uh-huh... really?... you would?... great!... when?... now!... of course, we'll be right over." I informed the band of the news. "You won't believe it. Andy Kaufman just called. He saw our first production of "Small Minds" on the cable and he wants us to be in his mud wrestling special for the network."

"How can you be sure it isn't a hoax?" quizzed Sarah.

"There's one way to find out. Garf, grab your portable VTR—this could be the break of a lifetime—let's jet!" (to be continued) ■

The situations and characterizations in this column are purely fictional and do not reflect anything relating even vaguely to reality, living or dead.

1982 studio supplies

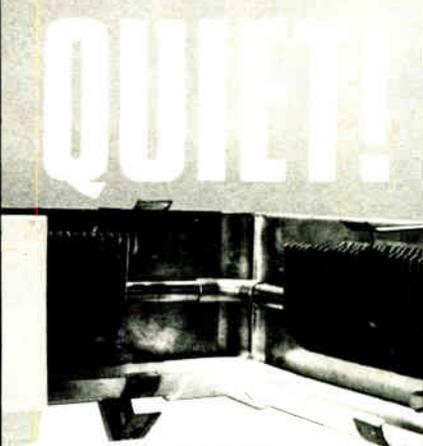
- Cut the high cost of studio supplies in 1982.
- Our "Special Order" flyers offer the same great supplies you'd find in our 5,000 sq. ft. store.
- Ampex tape, Tascam Equipment, XEDIT & ANNIS, RAMSA Mixers, MCI Recorders & Consoles, Mics by Audio Technica, Neumann, PZM, Master Room Reverbs, Lexicon, Orban.
- Write or phone to get your **FREE** flyer.

**PROAUDIO
SYSTEMS**

FEATURING FINE STUDIO EQUIPMENT

(206) 367-6800

11057 8th N.E., Seattle, WA 98125



**NO FANS
NO BAFFLES
NO DUCTS
NO NOISE!**

The only air conditioning system designed specifically for acoustically sensitive environments.

For designs and specifications contact:

**ACOUSTICCOOL USA
2943 Baker St.
San Francisco, Ca.
94123 (415) 931-8177**

TRIUMPH'S METAL WORKS

Artist Studios

by David Gans

"If you're working in a studio and your session is over at 2:00—not 2:05 or 2:10, no matter whether your guitar player is just getting hot on a solo—that's it, guys! Everybody gets up and walks out, and you're standing there saying, 'Oh, dear.' That's no way for artists to make records."

Mike Levine, bassist and spokesman for Canadian metal rockers Triumph, is explaining why the band built their own recording studio, Metalworks, in Mississauga, Ontario. "We didn't want to have to worry about the clock stopping," he says. Though the accountants and lawyers advised against it—and Levine and company are well aware of the unlikelihood of making a profit as a commercial venture—they decided to do it for primarily creative reasons.

"A deciding factor, though, was knowing that we're going to spend \$50,000 a year making records in someone else's studio; that's approximately what we're going to pay the bank in interest for our expenditures on Metalworks, so why not? We only need one or two other albums a year to break even," Levine adds, "so we really only *have* to be up four months a year."

As the name "Metalworks" might indicate, the studio was designed for rock and roll. "The whole back half of the room is paneled with pine," Levine notes. "It's *very* live, to give the drums a nice brightness. We do have an isolation booth for drums, though, if someone doesn't want that particular sound.

"The front half of the room has got soft acoustical tile, and on the wall we blow the guitar into, we've got about four feet of hanging bats to keep the sound from getting bad all over the place," Levine adds. "The bass guitar has a wall to blow into that takes the sound through a bunch of fiberglass into another room. You can get a really big sound out of it."

Metalworks' equipment consists



of a 52-input MCI 600 Series console with full automation, two of the newest MCI 24-tracks with the MCI Interlock system, and an MCI two-track. "We also have 16-track headblocks for one of the machines so you can do your bed tracks on the 16 and bounce them over to the 24 for your overdubs," notes Levine. "That way your bed tracks are fresh, played only once before mixdown."

Triumph is "philosophically opposed to noise reduction," though there is a pair of Dolbys for any outside client who wishes to master with it. If a client wants to record with noise reduction, Levine says, "I'll tell them, 'Go rent it—it's your business.' But I won't rent it for them.

It takes out the inherent noise of rock and roll. You need a little distortion, you need it breaking up a little."

Though Triumph uses a minimum of outboard equipment, Metalworks does have a few devices available. "I love the old Pultec tube equalizers, and I've managed to find four of them so far," says Levine.

"Tube gear gives you a whole different sound from solid-state stuff, and to my ears it's a better sound for rock and roll." There are also UREI LA-4 limiters, Gain Brains, Trident

equalizers, a Space Station, Lexicon DDL, and a pair of EMT plates.

"We're not looking to compete with everybody as a commercial studio, so there's no pressure to be on to the new stuff," notes Levine.

"What's functional is functional, and everything else is a waste. You can rent anything else you need, anyway."

Monitors include JBL 4350's, Auratones, a pair of little Radio Shack black speakers, and JBL 4311's. All are on-line and instantly switchable for comparisons.

AKG is the principal microphone brand at Metalworks. "They supply us with all their new stuff," says Levine. "We have all the standard mics—Neumann, Shure, Sony, Sennheiser—in all the standard models."

Levine describes Triumph's philosophy of recording by saying, "I think the sound you get coming off the floor is the sound you should try to get to your record." For example, he says the only microphone he'll use in front of a Marshall amp is a Shure SM-57.

Metalworks was originally conceived as a demo studio/rehearsal facility. "We had offices and warehousing, and when we decided

to be like everyone else and contract our sound and lights to other suppliers, we ended up with a lot of empty warehouse space," says Levine. "We figured we'd put in a little studio, but then we decided, 'What the hell?' It's not much more money to go all the way."

They contacted all the major manufacturers, then decided MCI was the way to go. "We got a good deal on the gear, because MCI is not as big in Canada as it is in the States," says Levine. "We weren't 100% sure we were making the right move, though, because we had recorded all our previous albums on Neve boards and Studer recorders—that's all any studio in Canada has."

The location of Metalworks is just far enough from Toronto to discourage hangers-on from coming by. "It's really a big factor," Levine notes. "Nobody comes in to say hello—no publisher, manager, wife, nor anybody else." The location puts Metalworks out of contention for Toronto's jingle and film business—"They all like to be downtown where they can go for four-hour lunches," Levine says wryly—but Metalworks is specifically meant to be a rock and roll studio, so nobody's complaining.

"Quite honestly, I've told some people *not* to come to the studio," admits Levine. "A producer will come to me with a singer-songwriter, and I'll tell him to go elsewhere. The last thing you want is to have someone running around saying he couldn't get the sound he wanted in your studio. You'll get a bad reputation that way."

Triumph consulted with the other studio owners around Toronto before they went to work on Metalworks. When it was finished, a band called Doug and the Slugs, from Vancouver, went in to do an album. When Triumph started their own project, Levine says, "we weren't happy with the sounds we were getting, so we took a month off to write and sent a construction crew in to remodel the whole place. There were too many standing waves, so they put some more angles in.

"We had a guy who's the new wizard in Toronto come in with his meters. He put rugs on the wall, moved the console, flipped the monitors over, all this stuff—and totally destroyed it. It was a joke!

"We put the console back where it was and made it sound good again," Levine says. "The guy said it looked great on the meters, but all the meters in the world don't mean a thing if it doesn't *sound* any good. We're in the business of pleasing ears, not eyes!"

If it isn't on the Tape it won't be on the DISK!

*For information, rates and dates, call Robin Yeager
(415) 456-7666*

 Tres
Virgos
Studios

*1925 Francisco Blvd., near the Richmond Bridge,
San Rafael, California 94901*

SOUND ON STAGE

This month we begin Sound on Stage, a column devoted to the topic of concert sound reinforcement. In the coming months we will use the Sound on Stage podium to discuss many different aspects of this quickly evolving part of the professional audio industry. Some columns will deal with significant new products or venues; others will present "reports from the field." We invite those of you involved in sound reinforcement to stay in touch and let us know about any special experiences you may be having on the concert trail. Drop us a line at Sound on Stage, c/o Mix Magazine, 2608 9th St., Berkeley, CA 94710.

For our first installment we thought it would be interesting to speak with John Meyer, a name that in the past few years has become virtually synonymous with top quality audio, whether on stage or in the studio. The MSL-3 loudspeaker system, produced at the San Leandro, California—based Meyer Sound Labs, is becoming a classic sound reproducer. In a very short time it has penetrated to applications from the San Francisco Opera House, to the technically advanced concert tours of Frank Zappa and the Grateful Dead.

The MSL-3 is the embodiment of John's design goal for sound reinforcement: loud, clean and compact. His development of the system goes back to the late sixties and his sound system design work for San Francisco's McCune Sound Service, a group that packages and rents sound reinforcement systems for a wide variety of users. John's experience with McCune's clients convinced him that sound reinforcement required more of an engineering systems approach to increase reliability and to decrease the problems that operators were finding in the field. So he developed a design that incorporated his best perceptions of what was universally needed: a modularly expandable, high powered, 3-way horn loaded system, capable of assembling and breaking down quickly, with a minimum of complexity. That system, the JM-3, rapidly became the mainstay of McCune's rental business.

In the ensuing years Meyer continued his research into sound reproduction at the Institute for Advanced Musical Studies in Montreux, Switzerland. Later he became involved as a designer of special audio and electronic equipment for cutting the direct to disk records of Crystal Clear Records, Mobile Fidelity and Delos Records.

When combined with their M-3 electronic control unit and 525 watts of total amplifier power, the system is guaranteed to meet these criteria: Frequency Response: 75 to 20,000 Hz plus or minus 4 dB measured with 1/3 octave pink noise; 130 dB SPL of continuous pink noise output at one meter and peaks of 135 dB SPL; distribution pattern, 40 degrees



He founded Meyer Sound Labs in 1979 for "the purpose of bringing audio equipment innovations, especially loudspeakers, to the professional marketplace."

The aforementioned MSL-3 speaker system is a refinement of the system designed for McCune. It is described as "a high-power, arrayable loudspeaker designed to perform in a wide range of large-scale sound reinforcement applications. It is a bi-amplified system consisting of two proprietary 12-inch low frequency cone drivers in a unique horn-loaded vented enclosure, a single high-frequency driver with a 70 degree horn, and an ultra high-frequency tweeter array." vertical by 70 degrees horizontal;

dimensions are 21 1/2"W by 56 3/4"H by 30"D, weight 275 lbs.

John's design goals on the MSL-3, as well as other products in their line, reflect a major emphasis on reducing distortion through the use of very high tolerances and matching components to the maximum degree so that there are no sonic differences from one unit to the next. According to him, "There is no 'Meyer' sound. There isn't any special 'sound' to a speaker if it is any good. It is just a reproducing device. What we want to make the speaker do is to be consistent... and that requires tight tolerances."

Though Meyer Sound Labs operates at the leading edge of speaker technology, they deal

(continued on page 56)



Confidence . . . feature for feature, dollar for dollar, unequaled reliable performance!

A strong statement in today's competitive world of packaged PA systems. But our conviction is based upon careful A-B comparisons with the industry's best.

Your purchase decision should be based upon facts with a very careful analysis of specs and performance.

Our new R-200 powered mixing console features 130 Watts RMS, 6 channels with HI and LO inputs, 3 band EQ per channel, 10 band master EQ, Reverb Exp. input, HI and LO effects send and low noise operation.

Add to this a pair of birch ply R-112HC speaker enclosures which offer an excellent size to weight sound ratio and have 180 Watts RMS power handling capacity. Built to last with heavy corner protectors, fully extruded

edges and speaker grill protectors. Each ROSS™ enclosure is also drilled to accommodate the R-8 speaker stand with a double security locking system and a full 8 foot extension.

There are many other ROSS™ systems designed to suit your specific performance needs.

Listen, compare and purchase ROSS™ with confidence at select dealers worldwide.



ROSS
SYSTEMS

INTERNATIONAL MUSIC CORP.
P.O. BOX 2344
FT. WORTH, TEXAS 76113
(817) 336-5114

Cassette Mastering Through Innovative Technology

The demand for audiophile tape cassettes has been expanding dramatically. The cassette mastering division of Master Digital provides super-fidelity tape copies recorded in real time from 16-bit digital audio masters. The digital format introduces no degeneration of signal; analog masters transferred to the digital system are reproduced exactly. All recording is done by sound engineers with extensive music experience.

We are not record manufacturers nor are we cassette duplicators. We are a team of professional recording engineers who believe in the market for audiophile pre-recorded cassettes. The present state-of-the-art consumer recognizes and demands the very best final product. We use only premium quality raw material in an environment built to master cassettes in real-time on a 1:1 basis from digital audio masters. Our facility is the finest ever built for this purpose. We invite you to visit us for a tour of our facility.

(continued from page 54)

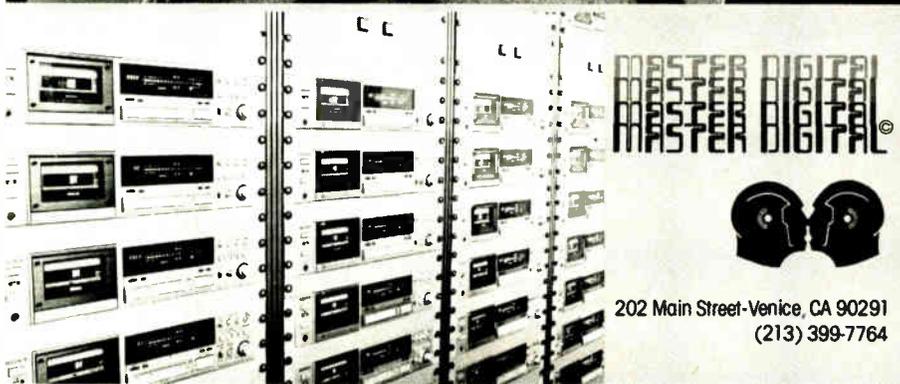
conservatively with the proliferation of new loudspeaker materials. Says Meyer, "We are trying to accomplish the job of good sound in the best way possible. We look at it very objectively and don't get awed by the technology or excited because something is made by this manufacturer or that manufacturer. We look at what we are trying to get the thing to do. Right now we're looking at the difference between silver and copper wire. The advantage of silver is very small. Costwise it is a big difference. But I wouldn't want to be in a position where I had to go to silver wire because some people thought that would make the system sound better. There hasn't been enough difference in the experiments we've done to warrant the cost. And we aren't going to do it unless we know that the advantages outweigh the cost."

Meyer sees his company as being "heavily instrument oriented. And we encourage our users, who for us are the professional dealers, to have enough test equipment to verify the operations: to make sure they don't have mixing consoles that are clipping, to be able to trace down where problems occur... just a systems approach like any engineering field that would look for the kind of problems that interfere with doing good sound."

As far as the user in the field, "What we recommend to operators is to use a 1/3 octave analyzer in the near field to verify the system—two feet from the speaker to make sure that it is working and flat—but after that we just tell them to listen and fine tune the room sound with their ears. We don't recommend doing a fancy analysis for the room because, unless they have a very sophisticated and expensive fast fourier analyzer, they might create more problems than they would solve."

With regards to loudspeaker advancements in the near future, Meyer says, "I doubt if cones will be obsolete in five years, unless we can find efficient ways of ionizing the air. We'll go to new materials, but it takes time to find out how they will fatigue and hold up. We've been doing research on some new materials but we aren't in any hurry to get them on the market. We don't want to have problems with them a year later."

"Advancement will be in refinements, as opposed to breakthroughs—more power handling ability, smaller size. The real breakthroughs will come more in conceptual applications of the systems."



MIX ADVERTISING WORKS... Take It From Paul Gerry

"I have spent a lot of money in many different publications regarding my disk mastering services, and have not had anywhere the response that I got from advertising in the Mix. I've had calls from all over the country requesting information on our disk mastering and record production services, and can enthusiastically recommend the Mix Magazine for getting in where it counts."

Owner & diskmastering engineer
THE CUTTING EDGE
Ferndale, N.Y.

DAVE EDMUNDS

“I was about twelve years of age,” Dave Edmunds recalls. “I heard it, loved it, and I’ve been stuck with it ever since.”

“Stuck” may be how the noted Welsh guitarist/singer/producer, (tongue firmly in cheek), describes his early (1956) and continual attraction to classic American rock & roll, rockabilly and R&B. But for his many admirers on both sides of the Atlantic, Edmunds’ dedication to preserving the purity and excitement of that music makes him a figure of almost noble stature. Perhaps even more importantly, by juxtaposing his interpretations of older songs with new material written by himself and such modern heavyweights as Graham Parker and Elvis Costello, Edmunds personally embodies the links in rock history.

Dave Edmunds was born about forty years ago in Wales, and began playing in local bands in the early 1960s. His first wider exposure came in 1968, when his band, Love Sculpture, carved out a Top Ten hit in Great Britain with “Sabre Dance” and released two albums before breaking up.

Nothing in Edmunds’ career prepared him for the instant worldwide fame he achieved in 1970 with the song “I Hear You Knocking,” a reworking of an old Smiley Lewis tune. Recorded at the newly constructed Rockfield Studios in Cardiff, Wales, Dave’s song quickly became the Number One single in Britain and reached Number Four in the United States. Edmunds explains that he had no inkling beforehand that “I Hear You Knocking” would catch on like it did: “Usually to get a record going like that—it did four million or something—it needs quite a marketing plan with the record company. Everyone has to be involved in really working on it. But it was just one of those records that happens. It had been released with nothing going for it. I had no manager, no agent, no band—nothing. It was released without any promotion, no adverts, and it just took off all around the world.”

To this day, Dave has no real explanation for why “I Hear You Knocking” was such a success, except that its immediate, hard-driving style set it apart from much of the music that was popular then. “Yeah,” he says, “there were no rock & roll records out at that time.”

Although the song proved to be no

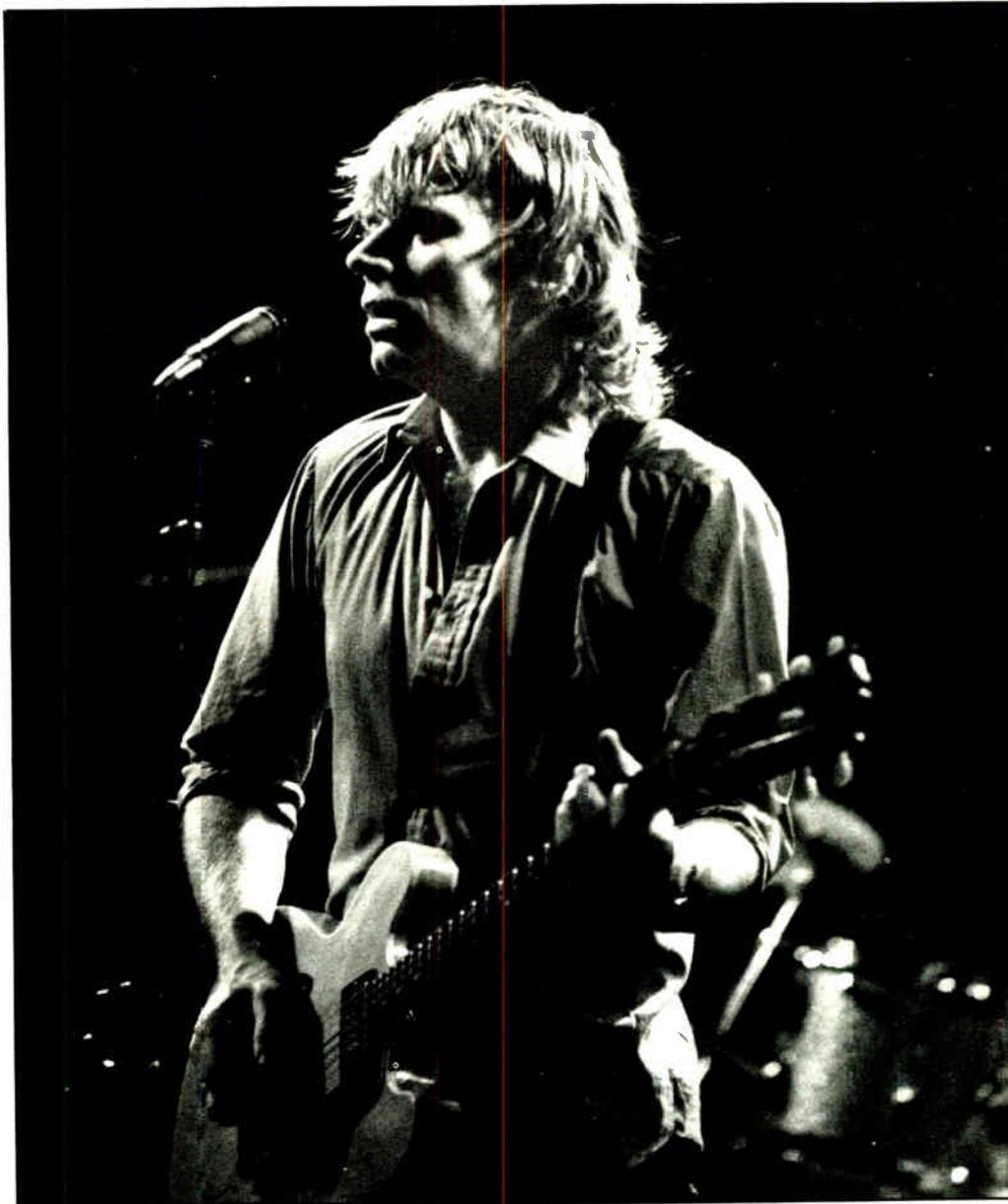


PHOTO © 1982 by Clayton Call

fluke as far as Edmunds’ talent was concerned, he wasn’t able to immediately follow up its success. As a result, he turned to producing at the Rockfield Studio. “I started producing when things were a bit slow after ‘I Hear You Knocking,’” he remembers. “I wanted simply to learn to engineer, how to handle a recording studio—for myself, really. The I found I was doing it for other people, especially people who were friends of mine.”

In the early to mid-Seventies, Ed-

munds produced albums by such groups as Brinsley Schwarz, Foghat, Man, the Flamin’ Groovies, and Del Shannon. He continued to record solo efforts, achieving some success in Europe, but it wasn’t until 1976, when he signed with Led Zeppelin’s Swan Song label (part of Atlantic Records), that his performing career took off again.

In quick succession, Edmunds released a series of albums—*Get It, Tracks On Wax 4, Repeat When*

Necessary, and, in 1981, *Twangin'*— that revealed both an uncanny knack for rediscovering neglected chestnuts from the past and finding vibrant new material. (Selections from these albums have recently been compiled in a collection, *The Best of Dave Edmunds*.) As for his archivist's ear, Edmunds says that when he chooses old songs he looks for "things that I think are very obscure that could be worked on, and that a lot of people haven't heard." The new songs, such as his 1980 hit with Hank DeVito's "Queen Of Hearts," in Edmunds' view, "just seemed perfect to record. It seemed as if Hank had written it for me."

The band that played on these albums became known as Rockpile. The quartet of Edmunds and Billy Bremmer on guitars, Nick Lowe on bass, and Terry Williams on drums stood out in the world of Anglo-American rock for their tight and economical structure and

their impeccable musicianship. They also had a rather unique relationship within the music industry. Since Lowe, whose solo career was also flourishing at this time, was under contract to a different record company than Edmunds, Rockpile would record and tour under both Lowe and Edmunds' names—depending on which one had an album out (and which label was footing the bill).

Successful as that arrangement was, the group decided eventually to make records and tour under the name Rockpile. But, particularly sad for those who thought that their LP, *Seconds Of Pleasure*, was one of the vinyl delights of 1980, the group prematurely disbanded. From the outside, it looked like a case where a couple had lived together happily for many years and then decided to get married, whereupon the whole relationship fell apart.

"You're not the first one to [make

that analogy]," Dave says in response, "and that's very good. When we were going along, doing the solo stuff for Nick and myself, everything seemed to work perfectly. We knew what we were doing and what we had to do. As soon as we were put in that situation where it was Rockpile, we seemed to lose direction immediately.

"We had a problem as soon as we walked into the studio," Edmunds continues. "We didn't quite know what to do. It ended up with Nick producing the songs that he was singing, and me producing the songs that I was singing, and neither one of us needed to be in the studio for the other. It seemed silly—changing everything and calling it Rockpile, while really nothing had changed at all."

Edmunds didn't feel that *Seconds Of Pleasure* "fit very comfortably." As
(continued on page 60)

Rockpile (L to R: Nick Lowe, Dave Edmunds, Terry Williams, Billy Bremmer).

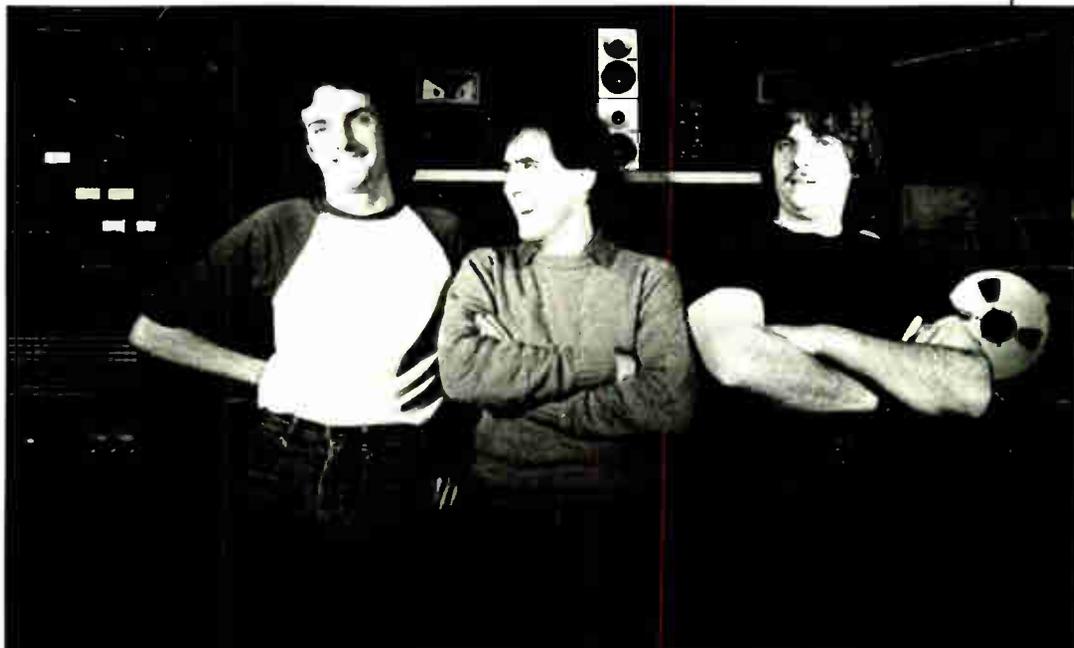


The LEONES!

OAKLAND'S ORIGINAL PRO-AUDIO GROUP

IN STOCK:

Ampex
Audio-Technica
Edit-All
Maxell
Scotch
TDK
Audio-Technica
AKG
Bever
Countryman
Edcor
Electro-Voice
Nady-Nasty Systems
Neumann
Sennheiser
Sescom
Shure
Sony
Altec-Lansing
Auratone
Bose
Calibration Standard
Instruments
Cerwin-Vega
Cetec-Gauss
Eastern Acoustic Works
Electro-Voice
Emilar
ESS Pro
Harbinger Audio
Heppner
JBL
Northwest Sound
Renkus-Heinz
Shure
Audioarts Engineering
Biamp
DBX
Delta-Lab Research
Eventide
EXR
Furman
Klark-Teknik
Lexicon
Mic Mix-Master Room
MXR
Orange Country Electronic
Sound Workshop
Tapco
TEAC/Tascam
UREI
White
Yamaha
DBX
Gotham Audio
IVIE
Sennheiser
Sound Technology
Audv
Biamp
Bose
Shure
Soundcraft
Tangent
Tapco



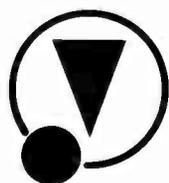
SCOTT • RAUL • MATT

Their straight ahead advice,
pro-equipment inventory, and
competitive pricing will be
music to your ears!

WE SPECIALIZE IN AUDIO EQUIPMENT
STUDIO... REMOTE... LIVE!

(415) 652-1553

We ship anywhere!



LEON'S

PROFESSIONAL
AUDIO

5447 Telegraph Avenue Oakland, CA 94609

**Coming
in
May**

**DIGITAL
RECORDING
UPDATE**

If your studio is equipped with digital recording gear, please get in touch so we can spread the word.

**(415)
843-7901**

**Changing
Your Address?**

Planning on moving? Please let us know six to eight weeks in advance so you don't miss a single issue of the MIX. Attach your old address label to this coupon and print in your new address below.

(Please print your new address here)

Name _____

Company _____

Address _____

City _____ State/Zip _____

Mail to:
MIX Publications, 2608 9th Street,
Berkeley, CA 94710

(continued from page 58)

for the group's tour, Edmunds says, "I don't think any of us enjoyed the tour that we did as Rockpile. It seemed a bit strained—now it's Nick's turn to sing, now it's Billy's, then it's mine. I don't know, it just didn't fall into place like it used to."

With Rockpile buried, Edmunds returned to his solo work. *Twangin'*, his latest album, was actually recorded before the Rockpile LP, but released a year later to avoid clashing with *Seconds Of Pleasure*. As the producer, Dave recreated something reminiscent of the old Sun Records sound of the 1950s, emphasizing the top end, putting a lot of echo on his voice, etc. Describing his technique, Edmunds says, "I like effects, but I'm of the old school, really. I don't like too much of the Harmonizers, flangers, and things like that. I find they take away and don't add to rock & roll, though they may be good for other styles of music." Dave tends to use "quite a few" overdubs: "I like to get the bass and drums down as quickly as possible and then work from there."

The one exception on *Twangin'* was the inclusion of Edmunds' 1968 recording of "Baby Let's Play House," a song made famous by Elvis Presley. Dave explains why he decided to use the old take: "I'd lost the record. We did four tracks of that Presley/Sun stuff back in 1968, and I lost the tapes. And they just turned up from certain people in London who collect things. I listened to them and they sounded pretty good. I just wanted to put it out as sort of a sign of affection for the great man—my own little tribute."

As for his equipment, Dave calls a 1958 blonde Gibson 335 his "main guitar." Edmunds bought it second-hand—"an original that hasn't been touched"—back in 1962 and has used it ever since. He also brings a black 335 on tours as a spare. In the studio, he uses a Gibson Switchmaster. "It's a lot richer" in tone than the 335, he feels. "If you listen to stuff like the sound Scotty Moore used to get on the Presley stuff, it's more like that. You can get a nice rich sound without having to use a lot of volume or fuzz or distortion."

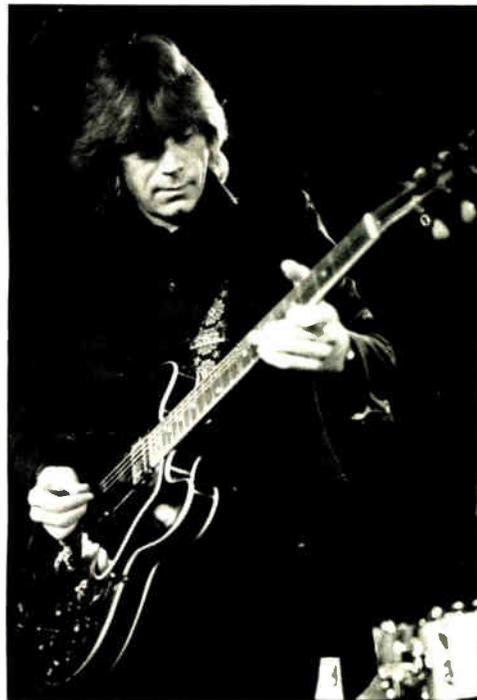
Edmunds has a fairly extensive guitar collection. In addition to the Switchmaster and three 335s, he owns a Fender Broadcaster, a Martin D45, a Gibson J200, a Gibson Everly Brothers, a Gibson L6S, a Gibson Les Paul Junior, and a few others as well.

Although he clearly loves guitars, Dave says that "I don't get along with amplifiers very well. I can't get a nice clean but full sound with an amplifier. If

I turn it up to get the volume I want, it just distorts. So I plug straight into the deck and get the sound I want that way." For touring, in the past he used Music Man amps, but recently switched to a Roland that was "slightly better."

About the time Rockpile was breaking up, Edmunds returned behind the boards to produce two British rockabilly bands—the debut album by the Stray Cats, and a single by the Polecats, "John I'm Only Dancing." Although both reached the British charts,

PHOTO © 1982 by Clayton Call



Edmunds does not expect to return to full-time producing. "Producing records isn't what I really want to do," he explains. "In fact, I had given it up altogether, but with the Stray Cats I just had to do that. That area of rock & roll is my favorite. But I don't think I'll be doing a helluva lot more of it. I've got a lot on my plate at the moment just with my own career."

That includes a recently completed European tour and recording a new studio album, due to come out in 1982. An American tour will follow shortly thereafter. Dave promises that his next album will be "90 percent" original material, "not necessarily written by myself, but by my friends." But fans of Edmunds' treatments of classic Chuck Berry, Everly Brothers, and Buddy Holly songs should not fear—the new tunes still have, according to Edmunds, "the same vibe to it, all that old stuff."

It's a vibe that, in the hands and voice of a master craftsman like Dave Edmunds, will live as long as rock & roll is played. ■

THIS MAN ENGINEERS & PRODUCES PLATINUM RECORDS



I go for the sound. The better the mic, the better the quality I can deliver. I bought two SR-1 prototypes a year ago, and have used them on acoustic piano exclusively. To me, the transparent sound is the difference between looking through a dirty control room window, and no window at all.

Ed Seay
Producer/Engineer
Paul Davis
Melissa Manchester
Peabo Bryson



Plug them in, place them and compare. You'll HEAR a new transparency and clarity. You'll experience the NEW State of the Art.



WRIGHT MICROPHONES • 2093 FAULKNER ROAD, N.E. • ATLANTA, GA. • (404) 321-3886

MUSIC NOTES

by David Gans

DIGITAL SEQUENCER/CONTROLLER FROM MOOG

Last month, we told you about The Source, a new programmable monophonic synthesizer from Moog. Now Moog Music has introduced a companion for The Source: the Digital Sequential Controller.

The DSC has three recording modes: normal, metronomic, and

expanded. In normal mode, triggers and control voltages are recorded concurrently but separately—that is, each trigger may have several associated CVs. The metronomic mode assigns the same time value to each event, disregarding timing information. In expanded mode, all

CV information—including vibrato and pitch bending—is stored.

Four sequences of any length can be stored, up to an aggregate total of 800 notes. Sequences may be "chained" for playback in any order. Playback can be stopped and then continued, or run in "single-step" mode. Notes within a sequence may be edited.

A "transpose chain" of keyboard intervals may be stored to produce automatic key changes. Output pulses can be programmed on any note or notes to initiate external action. Glide may be added to any recorded sequence, and a recorded glide can be converted to quantized glissando. The DSC also generates a SMPTE-compatible sync signal for interfacing with tape or additional controllers, and all DSC information can be dumped to standard cassette for permanent storage. Moog Music, 2500 Walden Avenue, Buffalo, NY 14225.

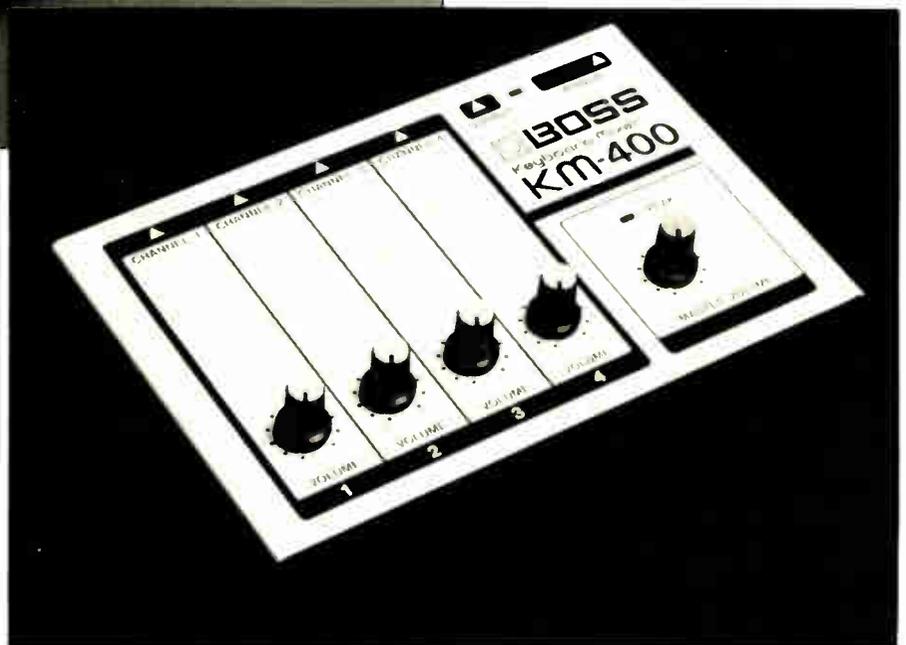


individual channel panning and level controls, dual master output level controls, stereo headphone output, and sufficient output levels to drive power amps efficiently. List price is \$240.00

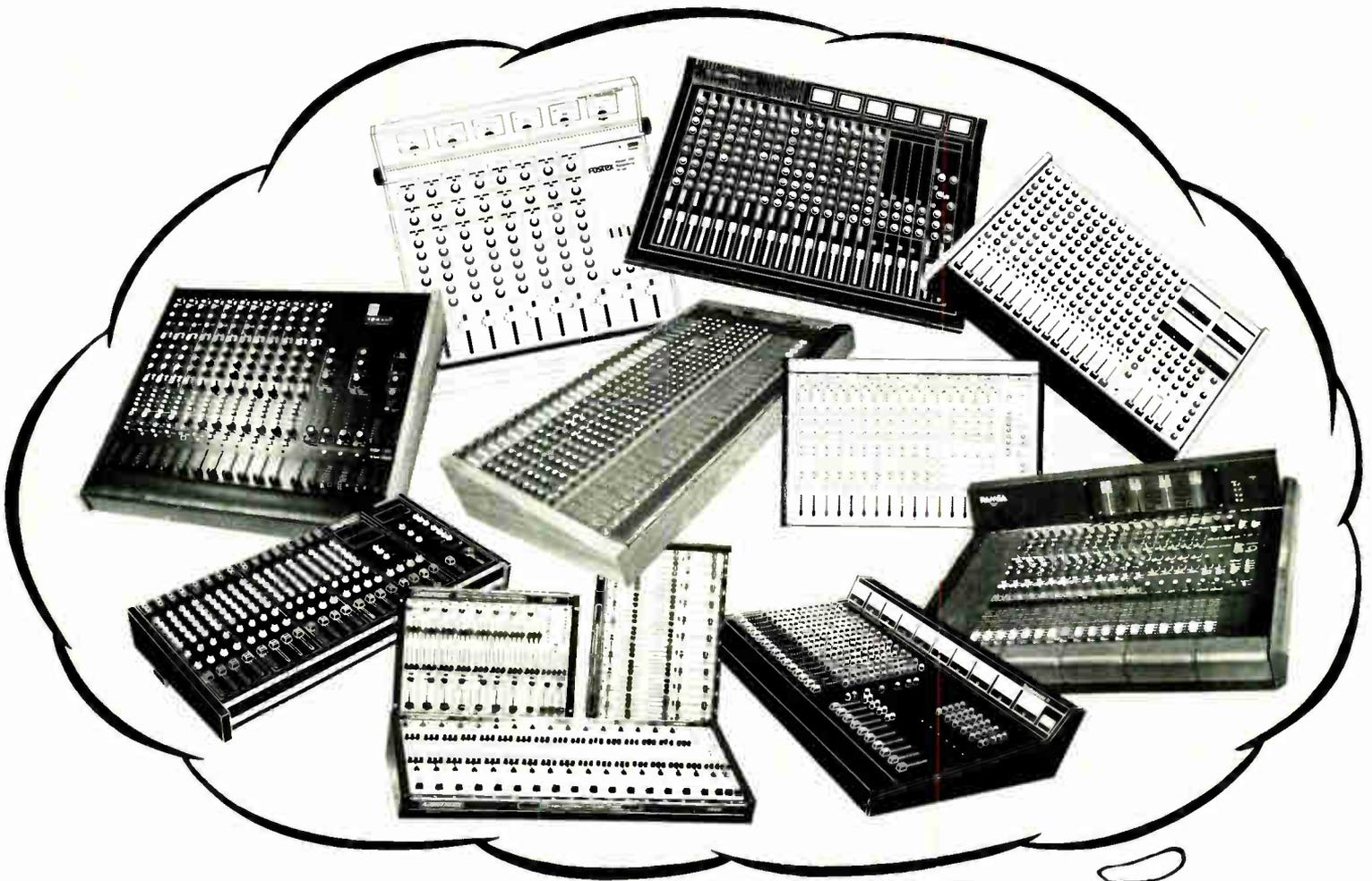
Both units feature LED peak output level indicators. For further information, write: Roland Corp. U.S., 2401 Saybrook Avenue, Los Angeles, CA 90040.

TWO NEW KEYBOARD MIXERS FROM ROLAND

The BOSS KM-400 and KM-600 feature streamlined circuit designs which omit unnecessary circuitry. The KM-400 is a four-channel mono mixer with independent volume controls and a master volume pot, AC powered, retailing for \$120.00. The KM-600 is a six-channel stereo mixer with



When you think Mixing Boards...



...Think East Coast Sound!

East Coast Sound is the largest pro audio and P.A. store on the east coast with over 60 mixers on display at all times. Some of our best selling mixers include: **Speck Electronics, Ramsa by Panasonic, Studiomixer, Walker, Allen & Heath, Soundtracks, Soundcraft, N.E.I., Canary, Audiotronix, Studiomaster, Kelsey, Tangent, Tapeo, Fostex, Audioarts, Yamaha and Biamp.**

Only 59 miles from New York City, East Coast Sound can custom design and build a complete sound system in any price range using new and/or used equipment.

For more information on all our product lines send \$3.00, refundable on your first order, for the largest, most complete pro audio catalog in the industry. We also offer a very complete literature packet measuring more than 5" thick and almost 10 lbs. of catalogs and spec sheets. Send \$12.00 for both the lit pak and the catalog.

And don't forget about our other lines of equipment which include: **Gauss, Crown, A.B., Micmix, Lexicon, B.G.W., Deltalab, Otari, Tascam, Fostex, and Mesa Boogie.**

East Coast Sound — the lowest prices anywhere!

PRICE GUARANTEED

Our system pricing is the guaranteed lowest anywhere. If any authorized dealer can beat our prices within 30 days of purchase we will refund the difference.



**We Ship C.O.D. Anywhere
3 MILLION DOLLAR INVENTORY**

**eastcoast
sound specialties**
242 Main St. Danbury, Ct. 06810

INFORMATION: 203-748-2799
ORDERS ONLY: 800-243-1054

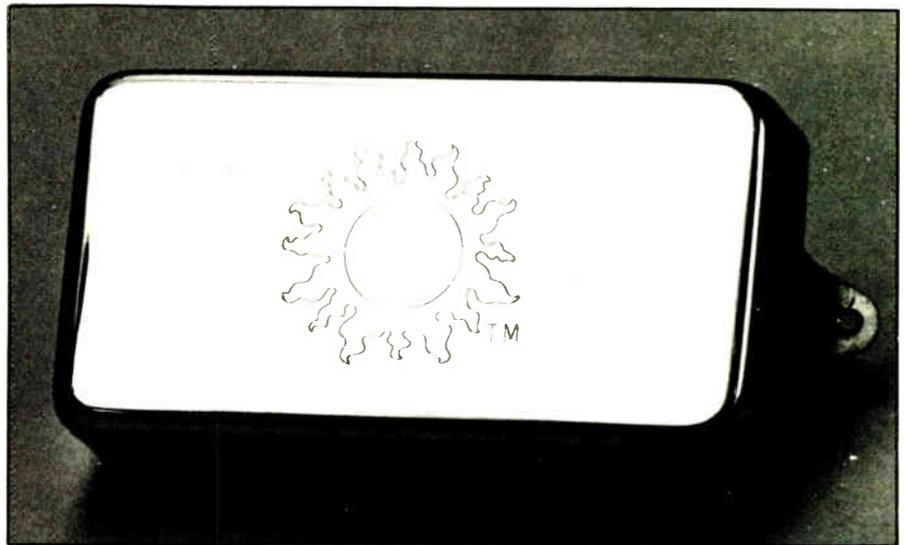


MUSIC NOTES

CELESTION UPS WARRANTY

All Celestion replacement drivers retailed in the United States are now warranted for five years, a result of new developments in Celestion's technology. Voice coils are now made from fiberglass, which offers increased rigidity, better thermal characteristics and longer wear.

The five-year warranty covers all defects due to workmanship and materials used, and specifies that Celestion will repair or replace defective drivers. As usual, the warranty does not cover abuse or operation of the drivers under conditions other than those specified by the manufacturer.



SWEET, CLEAN HUMBUCKER FROM DIMARZIO

Clarity and string balance are the advertised features of DiMarzio's SCHB humbucking pickup. In its single coil mode, it is sonically identical to the VS-1 "Vintage Strat" replacement pickup. It is completely contained in a chrome-plated cover

for shielding, and comes with DiMarzio's five-year warranty. Specifications: Inductance: 6.50 Henries; Impedance @ 100 Hz = 12.18K; Impedance @ 1 KHz = 42.70K; Impedance @ 2500 KHz = 101.65K; DC ohms = 12.00K.



LITTLE TINY ELECTRIC GUITARS

D'Mini Guitars from Phased Systems include copies of Les Paul, Stratocaster and Flying V guitars, plus an original design of their own. The body is made of ash, necks of either maple or ebony. Included in the

\$209.00 list price are a pair of "Bare-Touch" gloves (to keep the hands warm without restricting movement), three "Sharkfin" picks, and a "Fragile" decal, which puts the user in touch with an international lost-and-found network. For more information, write: Phased Systems, 6226 Santa Monica Blvd., Hollywood, CA 90038.

RANDY NEWMAN ON RAGTIME

Randy Newman seems a sure bet for an Oscar nomination—he has already won the L.A. Film Critics' Award—for his original score for *Ragtime*. Though his three uncles—Alfred, Lionel and Emil Newman—have been responsible for scores of scores and soundtracks over the years, Randy says he had no idea how hard the job would be. "I got an indication from how tortured they were when I saw them at an early age," says Randy, "but I didn't know that it would take so many hours a day just to get what seemed like not too big an amount of music done. It's better than threading pipe, but it took much longer than I could spend writing songs."

Randy is pleased with the resulting soundtrack album on Elektra, and only slightly less so with the music in the film itself. "It's a big art form, but it's too small a factor in the ultimate product," he says with a slight laugh. "It's *someone else's* final product."

Nevertheless, Randy hopes to have more screen assignments in the future. "You have to do it a lot to get proficient. If I did it for three or four years, three or four pictures a year, it might get easier eventually," he says. "But I've talked to guys who've done it for years, and they say it *never* gets easier." ■

The wraps are off.

Memorymoog

A 6-voice polyphonic synthesizer with 40 programs, 20 program chains, 3 oscillators per voice, expanded modulation, programmable pedal functions, an LED readout that asks for, and responds to, commands...and the Moog[®] sound.

DSC

(Digital Sequential Controller)
An 800-note digital sequential controller with storage of vibrato and pitch bend, programmable transposition, rhythmic auto-correction, cassette input/output, sync to tape recorders and battery backup.



Taurus II

A low-cost 1½ octave pedal synthesizer with detachable electronics, full modulation, performance controls and total interface capability.

Soon to be unveiled at your local authorized Moog dealer.

We're the people who started it all!

moog[®]

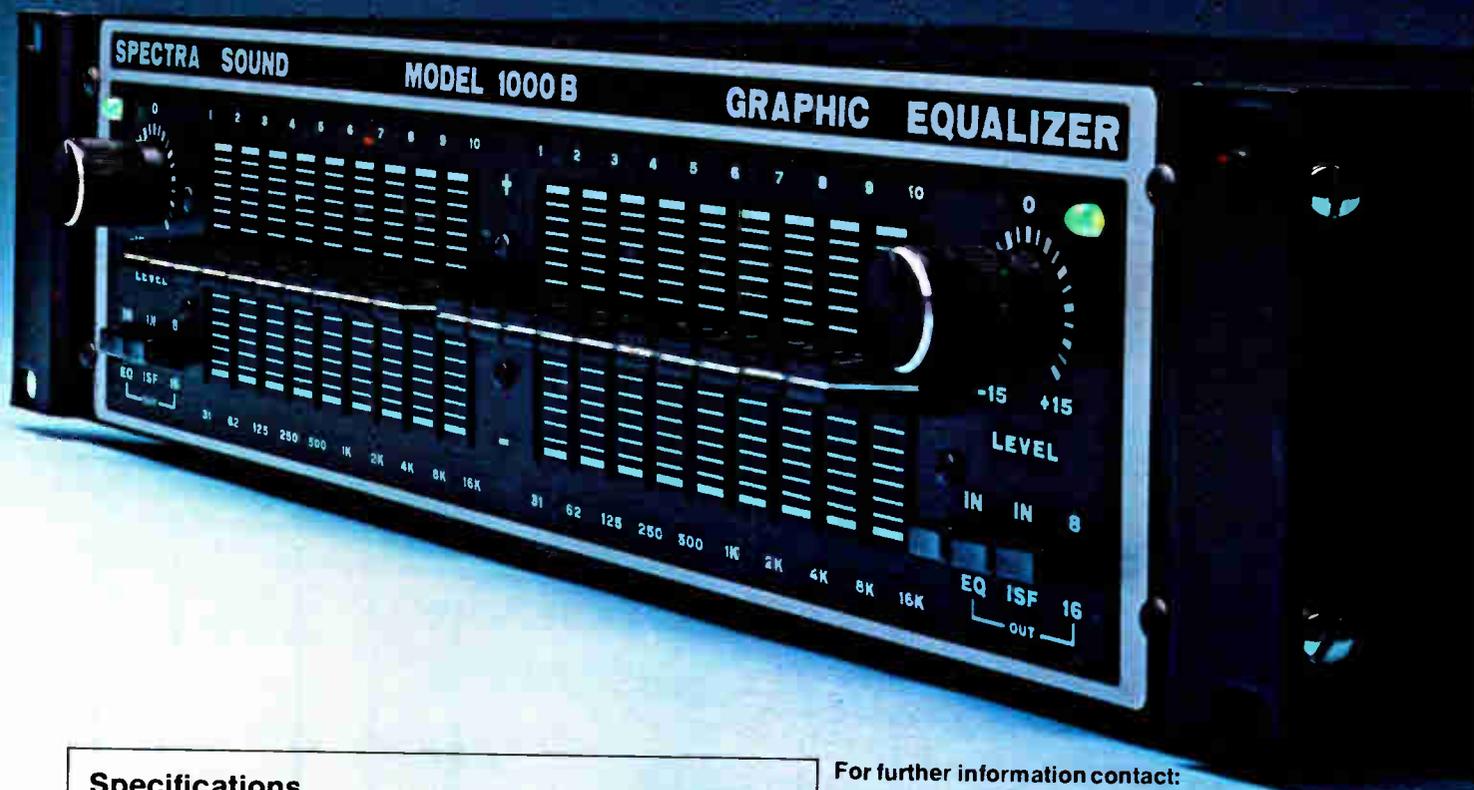
2500 Walden Ave.
Buffalo, NY 14225

Moog Music, Waalhaven Z.Z. 48, Rotterdam 3088 H.J., Holland-The Netherlands

The
Spectra Sound 1000B,
 a new industry
 standard in graphic
 equalizer performance,
 reliability,
 and versatility.

To be an audio industry standard requires unequaled performance, reliability and versatility. The Spectra Sound 1000B 10 band graphic equalizer excels in these realms with improvements not previously available to the professional audio industry. The unmeasurable distortion and extremely low noise of the 1000B did not happen by accident, but are the result of design and manufacturing techniques developed over the years.

In recording, broadcast, and sound reinforcement, the audio professional relies upon the equalizer to maximize sonic performance. The 1000B can ease equalization problems while insuring years of trouble free operation.



Specifications

T.H.D.	.0018% (Test Equipment Residual)
I.M.	.0018% (Test Equipment Residual)
*Signal/Noise Ratio	104 dB below +4dBv
Frequency Response	20 Hz to 20kHz, $\pm .5$ dB, +18dBv
Input Impedance	Balanced, 10k ohms, Unbalanced, 100k ohms
Output Impedance	Less than 1 ohm, typically .3 ohm
*Specification unweighted, 20 Hz to 20kHz.	

For further information contact:

**Spectra
 Sound**



3750 Airport Road
 Ogden, Utah 84403
 (801) 392-7531

Spectra Sound is a wholly
 owned subsidiary of Spectra Sonics.

The ever-increasing demands for better quality sound in the television industry has put considerable pressure on producers to deliver a clean sound product. Dolby Laboratories, a leader in audio noise reduction and motion picture sound processing devices, has entered the video age with Dolby-encoded, pre-recorded VHS tapes, and a consumer stereo surround decoder device.

DOLBY NOISE REDUCTION IN VIDEO PRODUCTION

Just as noise reduction systems have become standard equipment in professional recording studios throughout the world, video production facilities are also turning to Dolby systems to improve television sound. The audio quality of both quadruplex and helical-scan video recorders is inherently inferior to that of a professional audio tape machine. This disparity is due to a combination of factors: narrow track width, thin oxide coatings, an orientation of magnetic particles disadvantageous for audio, and crosstalk and spurious signal effects due to the control track, video tracks, and capstan drive motor. The use of Dolby A-type noise reduction can substantially improve VTR audio quality, thus eliminating a major stumbling block in the quest for better television sound. Single or multiple-track Dolby NR units are compatible with almost any VTR. In addition, Dolby Laboratories make modules designed specifically to plug into Ampex VPR-2 and Sony BVH-1000/1100 1" format machines, with modules for other recorders currently under development.

The Dolby A-type characteristic provides 10 dB of noise reduction from 30 Hz to 5 kHz, rising to 15 dB @ 15 kHz. Tape noise, DC noise, low-level hum, and amplifier noise are all reduced. In addition, harmonic distortion over the entire frequency range can be reduced, because satisfactory signal-to-noise ratios are achieved at lower recording levels. The noise reduction can be used, in part, to increase headroom.

DOLBY NR IN VIDEO POST- PRODUCTION AND DUPLICATION

Among the many reasons for the widespread use of A-type Dolby noise reduction is that it introduces no audible side effects with virtually any kind of program material. The system can be used with any audio recording or transmission chain wherein the signal is available before and after the noisy segment of the channel. Thus the A-type Dolby lends itself readily to use in film-to-master tape transfers, post-production sound work, and in videotape duplication.



Dolby Enters the Video Age

The A-type noise reduction is a special and sophisticated form of compression and expansion, which differs from conventional companding systems in two major respects. First, it is a dual-path system, whereby louder signals (which inherently mask noise) pass thru without processing, while companding occurs in a side-chain affecting only lower level signals. This has a number of advantages: minimizing encode-decode errors and permitting the use of effective overshoot suppression. Secondly, A-type NR is a multi-band system, and the low-level companding takes place in four independent frequency bands. As a result, the presence of signals in one part of the spectrum cannot inhibit noise reduction in other bands, eliminating the swishing and pumping side effects of conventional companders.

A further benefit of Dolby A-type noise reduction is a long-term 10 dB lessening of print-through. Recordings made originally without NR can be shielded from further deterioration by rerecording the material with Dolby.

A number of videocassette duplication facilities are now equipped with Dolby A-type noise reduction to take advantage of program material originally recorded with it. Producers can supply encoded masters and specify noise reduction for the tape releases. In addition, some VHS cassette duplica-

tors are releasing tapes with consumer B-type Dolby Stereo sound for playback on both conventional mono and the newer stereo VHS models.

DOLBY NOISE REDUCTION IN CABLE TELEVISION

Cable television programs are now being transmitted with stereo sound over the operators' cable FM channels simultaneously with the picture on the TV channels. Thus for the first time in the U.S., stereo television sound can be readily available to the home viewer. A number of cable outlets are also using the Dolby FM system, whereby B-type encoding is combined with a pre-emphasis change from 75 μ s to 25 μ s, for even higher quality sound.

Since 1975, nearly 200 feature films have been released with Dolby encoded soundtracks. Taking advantage of this high fidelity stereo format for cable TV requires little more than a film chain equipped with a stereo sound head, and two channels of Dolby A-type noise reduction to deliver superb sound reproduction to subscribers' homes.

THE DOLBY CONSUMER SURROUND DECODER

Standard 35mm stereo film sound has four separate tracks—three channels behind the screen (left, center, and right), and a surround channel with speakers around the auditorium carrying ambient and special effects sounds. When Dolby stereo movies are transferred to VHS cassettes, the film's three screen channels are re-mixed to left and right channels only. However, the resulting two tracks still contain the matrix-encoded signals which trigger the surround channel, and can be decoded by the home viewer using the Dolby Consumer Surround Decoder.

This low-cost device consists of input buffers, a switchable calibration meter, a simple left and right decoder, and a modified B-type processor which matches the circuit used to encode the surround information.

Listening tests have shown that the surround information derived with the consumer surround decoder is in most cases similar to that of sound decoded by Dolby professional cinema processors. One difference when comparing the consumer surround system with the professional system is that no center channel is provided. In a large movie theatre this channel is essential, to provide a balance for patrons in the side sections. However, this center channel proves unnecessary in home viewing, where the audience is smaller and the loudspeakers are fairly close together. Therefore, the economy of a two-channel-plus-surround system can be accomplished without loss of sound quality. ■

VIDEO NEWS

by Mia Amato

SOMETHING IN THE AIR?

"Live by satellite!" fever has struck the video music business, and both location audio facilities and fans are benefiting from this winter's frenzied activity. It's been particularly fascinating to observe the innovations on the downlink side of the transmissions in the creation of new forms of video venue. Some notable cases:

...**Oak Media's** pay-per-view telecast of the **Rolling Stones'** concert tour in Hampton, VA. Oak had had considerable success with championship boxing on pay-per-view, which allows pay tv subscribers to purchase a special viewing event individually; subscribers who do not pay for the event get neither sound nor picture during the show's duration. Average price for the Stones' show was \$10.00, and about 100,000 homes subscribed.

Oak only purchased the pay television rights to the concert; all video production was controlled by the band's organization. A spokesperson said Jagger "personally picked" Neil Marshall as producer. Marshall produced the satellite-transmitted Ali fight and is a veteran of tv's "Rock Concert" series. "Mick was very concerned about the picture quality, and he and the band had last say on everything," said our source. The Stones apparently were also concerned about piracy, so the signals sent up to the satellite from the concert uplink were "scrambled" on Oak's proprietary encoding system to prevent unlicensed reception.

...The series of concerts produced for the MTV 24-hour stereo music channel by **Boggs/Baker Productions**. Boggs is a daytime talkshow host; Richard Baker won his satellite stripes in association with "Live From Lincoln Center." Live performances such as **Ian Hunter**, **Frank Zappa** and **Mink DeVille** were transmitted live from a number of New York City's smaller clubs for MTV's network reaching 300 cable tv systems. **Unitel** supplied the video, **Record Plant** supplied the audio, and David Santee is series director.

...**Rod Stewart's** live simulcast from the LA Forum, aired in broadcast television markets through **Wold Entertainment's** syndication efforts. Several national sponsors carried the show, which included commercial breaks as well as appearances by Tina Turner and Kim Carnes. LA promo mogul **Bruce Gowers** directed.

The Wold Group is no stranger to this type of telecast, with its daily satellite feed of the "Merv Griffin Show." Wold has its own transponder space as well as its own earth stations strategically located in various major markets, although in this particular telecast some cities were linked by telephone line. FM radio stations in the cities supplied the stereo simulcast. Video facilities were supplied by **Continental Color Recording**; audio by the **Record Plant**.

Live simulcast technology has been around for years (ask any opera buff) so why is it that so many rockers are now "getting on the bird?"

All of this season's satellite rock shows were videorecorded for future distribution in cable, home video, or foreign television. The music industry has discovered a quick and cost-efficient way to get videomusic in the can, using money gained from the sale of one-time televised concert rights to finance the production of a show that can then be released in a variety of ancillary markets.

CASSETTE, DISK, CABLE: THE CONNECTION

At least two record companies have discovered a lucrative link between cable and cassette/disk sales. **Chrysalis**, having spent six months touting British-made music programming to the cable television industry, is now turning most of the same titles to the home videomarket on cassette. First two titles to be released are "Best of Blondie" and Jethro Tull's "Slipstream." Terry Ellis of the firm says Chrysalis will rely on independent distributors such as Pickwick and Video Station.

Thorne-EMI recently announced it would be entering the U.S. cassette market with two

programs: Queen's "Greatest Flicks," a compilation of their promo and concert footage, and a Paul McCartney special. The company will also be releasing some of its movie product, such as "One Flew Over the Cuckoo's Nest." **Thorne-EMI** has also been discretely advertising in the cable tv trade press with an eye towards releasing the same programs to pay-tv.

Both these firms and you future cassette/disk marketers might take a tip from **Pacific Arts'** marketing strategy. Mike Nesmith's promotion scheme for "Elephant Parts" now includes sending a free half-minute tv commercial to dealers who carry the program in their stores. Retailers purchase the local tv time; Nesmith provides the standard two-inch quad reel which has 25 seconds promoting the cassette and five seconds to carry the name and address of the dealer's store.

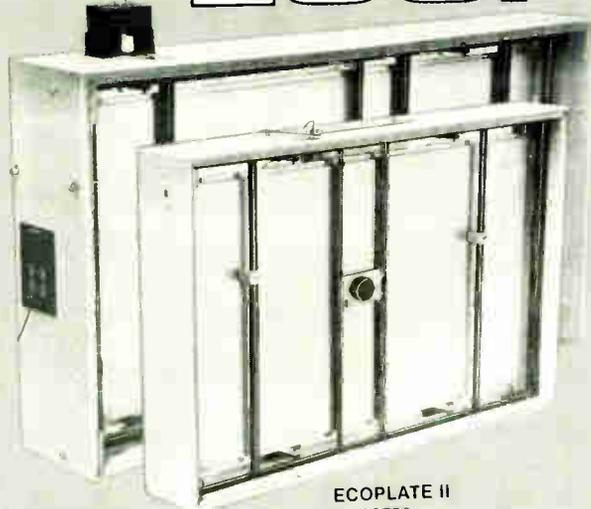
COMPANIES: CALIFORNIA SPOTLIGHT

Gary Rocklen of **Kramer/Rocklen Studios** in LA has completed an hour-long **Doobie Brothers** special for **Doobro Management's** Bruce Cohn. The videotape is a concert held at the University of California in Santa Barbara last year. **Video-Pac Systems** provided the portable facilities.

Rocklen's partner Jerry Kramer has also been busy, directing the videotaping of the San Francisco International **KJAZ Jazz Festival**. Shot over three nights, the performances include The Dave Brubeck Quartet, Cal Tjader and Chick Corea. That show is now in post-production, as is Kramer's production of the **Go-Go's'** taped filmstyle in the Palos Verdes High School gym for **IRS Records**.

Kazuko Ishida of **Teresa Records** in Berkeley says the label has begun a video project with several of its jazz artists, and is exploring both cable and home video distribution. Up in Orinda, Jim Lantz announced the opening of **Positive Video**, a multi-format post-production studio with 16-track MCI audio capability. ■

ECOPLATE™



ECOPLATE
\$5000
THE FAMOUS
ORIGINAL

ECOPLATE II
\$2750
THE MOST COST EFFECTIVE
REVERB IN THE WORLD

When so many famous studios and recording engineers choose ECOPLATES for their exceptional musical qualities, isn't it time you thought about owning one?

- Bruce Swedien, Engineer for Quincy Jones, Michael Jackson
- Don Hahn, Director of A & M Recording Studios, Engineer for Herb Alpert
- Gary Loizzo of Pumpkin Studios, Engineer for STYX
- George Massenberg Studios for Earth, Wind and Fire

STUDIO TECHNOLOGIES

6666 North Lincoln Avenue • Lincolnwood, IL 60645
an affiliate of Programming Technologies, Inc. • 312/676-9400

SIX SIMULTANEOUS DELAYS



The A/DA Stereo Tapped Delay (STD-1) is the only voltage controlled analog delay capable of producing six different delays simultaneously, making it the most powerful time processor available for "stereo" flanging, doubling, and multi-voice chorus effects.

Conventional delays take one input signal and produce one output signal at one delay length. When a signal enters the STD-1, it is delayed, then tapped at six different non-harmonically related points ranging from 1.3 to 55.5 ms. This produces six variations of the signal, each capable of being assigned and mixed into two output channels. The non-harmonically related taps create a natural sounding time delay, while other units at best, are multiples of some fixed delay time, creating predictable sounding effects.

The extensive delay section produces a 1-5x continuously variable delay range from each tap. The delay time can be swept at rates varying from .1 to 25 seconds. As the Sweep rate is increased, the Sweep range automatically tapers so you perceive a change in rate only, without an accompanying change in

range as is common with other units. (You're not forced to compensate by backing off the C.V. Mix when you increase the Sweep speed). Further, the Sweep Modulation control superimposes a higher frequency sweep pattern over the regular sweep. This allows effects like a vibrato sweep to sweeps which appear to move randomly like sample and hold on synthesizers.

The regeneration section has been carefully tailored to achieve mechanical to natural sounding ambiances by providing separate Level, High Cut equalization, and Tap select controls that can be switched in or out from the front panel or remotely via the rear panel jack. The Level control determines the decay time at long delays (up to 15 seconds), and the amount of resonance at short delays (up to -12 dB). Since a reverberant signal primarily consists of bass and lower midrange frequencies, the High Cut feature in the STD-1 reduces the high-frequency content in the program material as it recirculates through the system for a more natural sounding echo. At longer delay

times, echoes can be textured from a hard reverb to a soft spacious drone. At short delay times, the resonance can be shaped from a sharp "metallic ringing" sound to "boomy" bass peaking.

All these features working independently and in conjunction, allow such effects as high flanging, low flanging, voice doubling, multi-voice chorusing, echo, reverberation, machine gun reverb, singular to multiple "doppler" effects, vibrato, and highly resonant flanging. Never before has such an unlimited number of delay combinations been available to the musician, engineer, or concert sound technician.

A/DA
Signal Processors

A/DA
2316 Fourth Street
Berkeley, CA 94710
(415) 548 1311

PREVIEW



Neve Digital Audio Console

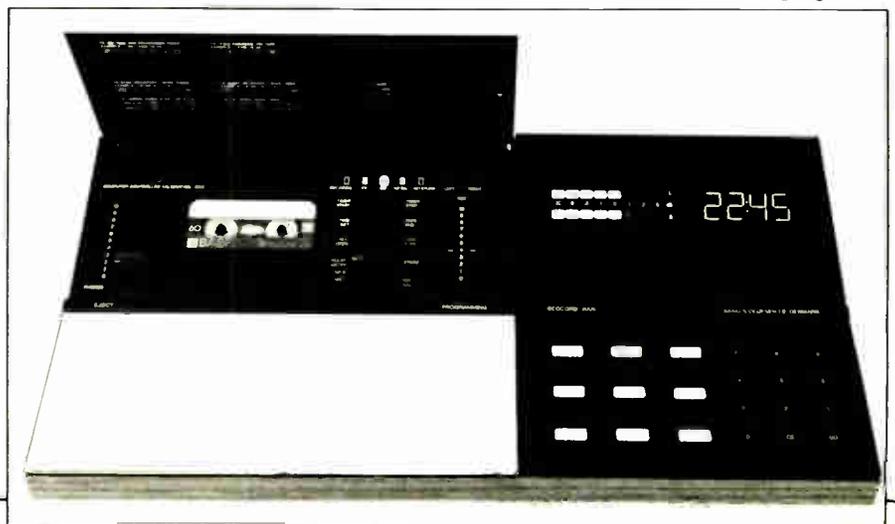
Rupert Neve Inc. has announced the introduction of a full-facility, full-scale digital audio console. The DSP (Digital Signal Processing) control console is totally remote from the signal processing equipment and offers CCR—complete control reset, full control assignability and the automation involving memory of all control functions.

All signal processing is carried out entirely digitally. The system can receive and output analogue signals and the studio need not know operationally that the signal processing is carried out in the digital domain. (In the same way that many analogue studios today use digital delay lines, echo devices etc.) These mixers will operate analogue in and digital out to feed digital multitrack machines and operate digital-to-digital for mix-down between multitrack and digital master tape recorders. Following technical discussions between Neve E.I.

Neve Digital Audio Console



Beocord 9000



and Studer International it has been agreed that signal interfaces between the DSP system and Studer digital tape machines will be guaranteed.

Versions of this mixer are also available for disk mastering applications using digital delay to achieve the advance signal required for analog cutting lathes. DSP console systems are available for delivery in late 1982.

For more information, contact:
Tore B. Nordahl
Rupert Neve Inc.
Berkshire Industrial Park
Bethel, CT 06801
203/744-6230

Computer Controlled Cassette Deck

Bang & Olufsen has introduced a computer controlled cassette recorder, the Beocord 9000, which features a calibration system that automatically measures distortion—an industry first. The computer controlled calibration system also enables the deck's electronics to be adjusted in accordance with crucial tape parameters, allowing the use of virtually any brand and type of cassette tape. The deck incorporated B&O's new HX Professional system for increasing high frequency headroom, and both Dolby B and Dolby C noise reduction.

Other innovative user convenience features include: four memories for calibrated settings of all four tape categories; automatic tape alignment; automatic bias setting for each channel; newly developed, user-adjustable, dual section head for recording and playback; built-in azimuth alignment system; automatic tape head demagnetization, and an automated real time measurement system which indicates both time elapsed and remaining time on the tape during recording. Suggested retail price is \$1800.

For more information, contact:
Bang & Olufson of America, Inc.
515 Busse Road
Elk Grove Village, IL 60007

(continued on page 77)

Like father,
like son.

For roughly \$10,000, you can own the ultimate analog mastering deck—the Studer A80RC half-inch two-track recorder.

Beyond your budget? Well, for about 1/5 the price you can own a Revox PR99 compact professional recorder. It's made by the same company, it draws on the same wealth of engineering expertise, and it reflects the same philosophy of design and construction—a philosophy established by Willi Studer over three decades ago.

The PR99's bloodlines are evident in every detail...in the precision-machined headblock, the rugged die-cast chassis, the servo-controlled capstan motor, and the Studer-made heads. Professional design features include a flat faceplate for easy head access; edit switch to defeat tape lifters and fast wind latching; tape dump button; balanced XLR inputs and outputs switchable for calibrated or uncalibrated mode; and two-way self-sync with auto input switching. The PR99 may be ordered with 3¾-7½ or 7½-15 ips tape speeds. Vari-speed, full remote control, and monitor panel available as options.

The PR99 now comes in console, rack mount and transportation case versions. Check it out. Call or write today for the location of your nearest dealer.

The PR99. From the world's most respected name in recording.

STUDER REVOX

STUDER REVOX AMERICA, INC. • 1425 Elm Hill Pike • Nashville, TN 37210 • (615) 254-5651

SOUNDCRAFT SERIES 800 MORE FOR LESS

The Soundcraft Series 800 is the answer for any pro who's always wanted more console... but didn't have the space. A Series 800 can give more console in less space to the recording engineer... the sound-mixer... or performing musician. And, with the new emphasis on sound for mobile video recording, a Series 800 can be the perfect fit in a cramped van!

The Series 800 is a compact 8 buss console available in 18, 26 or 32 input mainframes and can be configured for recording, sound reinforcement or stage monitoring... with no compromises in performance or quality. In fact, the Series 800 is built using the same quality components that go into the Series 2400... like Soundcraft's famous 41 detent EQ pots.

Compact usually means a little board with no features. But, the Series 800 with 18 inputs and 8 outputs, 4 band EQ on all inputs, and a host of other features you want, can fit in the smallest 16-track studio or production van, because it takes just 3½ feet of space. The 32 in/8 out frame takes less than 6 feet!

Naturally, the compact size of the Series 800 makes it ideal for sound reinforcement or stage monitoring, too. You don't need a Summo wrestler to haul them around like some of the Oriental brands. Besides saving roadies' backs, they save stage or audience space, too.

For the name of your nearest authorized Soundcraft dealer call Mr. Wayne Freeman at (213) 328-2595 or send in the coupon below.

- Please send me more information on the Series 800.
 Please send me the name of my nearest Series 800 dealer.

Name _____
Address _____
City _____ State _____ Zip _____
Phone: _____

Mail to: Soundcraft USA
20610 Manhattan Pl.
Suite 120
Torrance, CA 90501



Soundcraft

THE CHALLENGER

Soundcraft Electronics U.S.A.
20610 Manhattan Place, Suite 120
Torrance, CA 90501
(213) 328-2595 Telex 182-499

Soundcraft Electronics Limited
5-8 Great Sutton Street
London EC1V 0BX England
01-251-3631 Telex: 21198

Truck courtesy Electronic Location Productions, Reno, NV. Photographed at Compact Video Sales, Burbank, CA

World Radio History

Reader Service Page

If you would like to receive further information on products and services advertised in Mix Magazine, just check the ap-

propriate boxes and mail us this page. **Please note! We ask that you check no more than 10 advertisers. Thank you.**

Page No.	Advertiser	Info for Purchase	Info for Files
69	A/DA	<input type="checkbox"/>	<input type="checkbox"/>
2	AMEK Consoles	<input type="checkbox"/>	<input type="checkbox"/>
9	Ampex Corporation	<input type="checkbox"/>	<input type="checkbox"/>
43	Ardent Studios	<input type="checkbox"/>	<input type="checkbox"/>
37	Audioforce	<input type="checkbox"/>	<input type="checkbox"/>
15	Audioforce/mixers	<input type="checkbox"/>	<input type="checkbox"/>
47	Audio Image Recording	<input type="checkbox"/>	<input type="checkbox"/>
33	Chelshire Sound Studios	<input type="checkbox"/>	<input type="checkbox"/>
35	Criteria Recording	<input type="checkbox"/>	<input type="checkbox"/>
25	dbx, Inc.	<input type="checkbox"/>	<input type="checkbox"/>
63	Eastcoast Sound Specialties	<input type="checkbox"/>	<input type="checkbox"/>
23	E-mu Systems	<input type="checkbox"/>	<input type="checkbox"/>
29	I.A.M.	<input type="checkbox"/>	<input type="checkbox"/>
76	Jensen Transformers	<input type="checkbox"/>	<input type="checkbox"/>
77	JRF Company	<input type="checkbox"/>	<input type="checkbox"/>
59	Leo's Pro Audio	<input type="checkbox"/>	<input type="checkbox"/>
19	Lexicon, Inc.	<input type="checkbox"/>	<input type="checkbox"/>
75	Linear & Digital Systems	<input type="checkbox"/>	<input type="checkbox"/>
56	Master Digital	<input type="checkbox"/>	<input type="checkbox"/>
34	Master Technologies	<input type="checkbox"/>	<input type="checkbox"/>
21	Maxell Corporation	<input type="checkbox"/>	<input type="checkbox"/>
65	Moog Music, Inc.	<input type="checkbox"/>	<input type="checkbox"/>
39	Polyline Corporation	<input type="checkbox"/>	<input type="checkbox"/>
32	Pro Audio Rentals	<input type="checkbox"/>	<input type="checkbox"/>
51	Pro Audio Systems	<input type="checkbox"/>	<input type="checkbox"/>
79	Pulsar Labs	<input type="checkbox"/>	<input type="checkbox"/>
55	Ross Systems	<input type="checkbox"/>	<input type="checkbox"/>
16	Sequential Circuits	<input type="checkbox"/>	<input type="checkbox"/>
10	Shure Brothers	<input type="checkbox"/>	<input type="checkbox"/>
72	Soundcraft, U.S.	<input type="checkbox"/>	<input type="checkbox"/>
27	Sound Investments	<input type="checkbox"/>	<input type="checkbox"/>
66	Spectra Sound	<input type="checkbox"/>	<input type="checkbox"/>
71	Studer Revox	<input type="checkbox"/>	<input type="checkbox"/>
69	Studio Technologies	<input type="checkbox"/>	<input type="checkbox"/>
5	TOA Electric Co. LTD.	<input type="checkbox"/>	<input type="checkbox"/>
53	Tres Virgos Studios	<input type="checkbox"/>	<input type="checkbox"/>
B/C	U.R.E.I.	<input type="checkbox"/>	<input type="checkbox"/>
51	USA Acousti-cool	<input type="checkbox"/>	<input type="checkbox"/>
49	Valley People	<input type="checkbox"/>	<input type="checkbox"/>
61	Wright Microphones	<input type="checkbox"/>	<input type="checkbox"/>
7	Yamaha	<input type="checkbox"/>	<input type="checkbox"/>

Name _____
 Company _____
 (If company is a recording studio, specify number of tracks) _____
 Street _____
 City, State, Zip _____
 Phone () _____
 Signature _____

PLEASE ANSWER THE FOLLOWING QUESTIONS:

A. AGE: _____ B. SEX: Male
 Female

OCCUPATION (Please check the most specific category)

<p>C. RECORDING STUDIO</p> <input type="checkbox"/> Owner <input type="checkbox"/> Engineer <input type="checkbox"/> Staff <input type="checkbox"/> Independent <input type="checkbox"/> Maintenance <input type="checkbox"/> Producer <input type="checkbox"/> Independent <input type="checkbox"/> Staff <input type="checkbox"/> Studio Employee	<p>D. PROFESSIONAL AUDIO</p> <input type="checkbox"/> Manufacturer <input type="checkbox"/> Dealer <input type="checkbox"/> Store Owner <input type="checkbox"/> Employee <input type="checkbox"/> Manufacturers Rep <input type="checkbox"/> Studio Designer <input type="checkbox"/> Acoustic Consultant <input type="checkbox"/> Sound Reinforcement <input type="checkbox"/> Other: _____
<p>E. VIDEO/BROADCAST</p> <input type="checkbox"/> Equipment Mfg. <input type="checkbox"/> Equipment Rep <input type="checkbox"/> Production Company <input type="checkbox"/> Post Production <input type="checkbox"/> Engineer <input type="checkbox"/> Other: _____	<p>F. MISCELLANEOUS</p> <input type="checkbox"/> Audio Student <input type="checkbox"/> Musician <input type="checkbox"/> Full Time <input type="checkbox"/> Part Time <input type="checkbox"/> Other: _____

G. DO YOU APPROVE PURCHASES FOR COMPANY?
 YES NO

H. HOW LONG HAVE YOU BEEN INVOLVED IN RECORDING?

I. WHERE DID YOU GET THIS COPY OF THE MIX?
 Recording Studio
 Pro Audio Retailer
 Newstand
 Music Retailer
 Subscription
 Other: _____

J. WHAT TRADE SHOWS DO YOU PLAN TO ATTEND THIS YEAR?
 AES
 NAB
 NARM
 CES
 NAMM
 SMPTE
 PEPS
 SPARS
 Other: _____

Mix, February 1982

This response page expires April 30, 1982

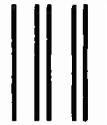
INSTANT MAILER
 Just cut this page out,
 fold, staple and
 drop in the
 mailbox

Reader Service Page

INSTANT MAILER

Fold on the lines, staple and mail.
No postage required

* Use this form also to subscribe to Mix.
(See below)



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 2994 BERKELEY, CA

Postage will be paid by addressee

Mix Magazine
P.O. Box 6395
Albany, CA 94706



SUBSCRIBE TO MIX

with this same mailing form

I am enclosing a check for
\$18 or an equivalent charge on
VISA/MasterCard:

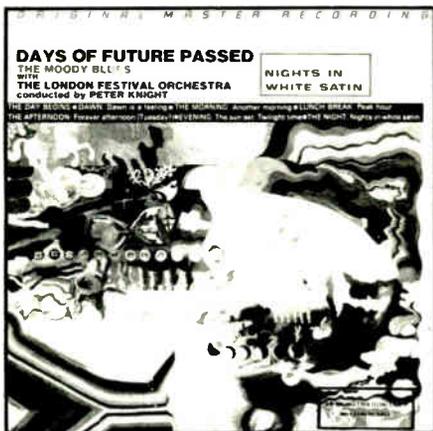
Exp. Date _____
Card # _____
Signature _____

Name _____
Company _____
Address _____
City _____
State, Zip _____



Cut Here — Fold and Mail — No Postage Required

Off the Record



Days of Future Passed
The Moody Blues with
the London Festival Orchestra
Mobile Fidelity MFSL 1-042
 Conducted by Peter Knight; executive producer: Hugh Mendil; realisation: Dacre-Barclay, Tony Clarke; recording engineer: Derek Varnals; half-speed production and mastering by the Original Masteringworks.

This 1967 recording was a breakthrough in rock music contemporary with *Sgt. Pepper's Lonely Hearts Club Band*. It was the first installment in the Moody Blues' series of orchestral-rock albums that began ambitiously and sank into saccharin pretentiousness a few years later. (But what do I know? The Moodies were chart-toppers again in 1981, and their live show proves that these geezers can still rock and roll pretty well).

The hits, "Tuesday Afternoon" and "Nights In White Satin," still hold up beautifully, and except for the poetry-reading passages—which sound a bit silly now that flower-power is a thing of the distant past—the rest of the record works quite well, too. The orchestral passages are beautifully recorded, with no noise, great stereo imaging, a natural-sounding mix—all the things our teenage stereos didn't reveal in the '60s.

For everyone who wore out several copies of *Days of Future Passed*, Mobile Fidelity has pressed up a version that will last the rest of your days—assuming that you're not still playing it hourly. Now if we could get them to do the same for *Surrealistic Pillow*, *Live Dead*, *Let It Bleed*...

—David Gans



T.C.
Tom Coster
Fantasy Records
 Produced by: Tom Coster and Phil Kaffel; recorded, mixed and mastered at: Fantasy Studios; mixed by: Phil Kaffel with Tom Coster and Danny Kopelson; mastered by: George Horn.



Untold Passion
Neal Schon/Jan Hammer
Columbia
 Recorded and mixed at: Red Gate Studio; engineered by: Jan Hammer.

These two albums represent some of the best in the recent practice of that much-maligned genre, fusion music, with the accent in each case definitely on the rock rather than

the jazz side of the fusion: specifically, with Schon/Hammer curving away into intense, semi-metal territory and Coster curving the other way down the Latin/romantic boulevard.

The albums also have in common the fact that both of the main men, Coster and Schon, are alumni of Santana, Schon having left in 1973 (in reaction to Carlos' turn to spiritual jazz) to found Journey, Coster having left (after six years of service) in 1978 when he got tired of playing commercial material that did not press him, he says, anywhere near the limits of his capabilities. "We were having hits with things like 'She's Not There,'" recalls Coster. "It's nice to have hits but any twelve year old can play that keyboard part."

So he went off to Montreux with Billy Cobham to play briefly in the company of some longtime idols, took a year off to go fishing, play with the kids and tinker around the house, and then, restless again, put together a band for this album. Namely: bassist Randy Jackson, whom we met through Cobham; guitarist

SUBSCRIBE to the MIX

The Recording Industry Magazine.

See page 74 for a subscribers coupon and use the handy self mailer. Do it today!

Noise Suppression & Power Protection



Model PS-1

The PS-1 is a power line conditioning unit designed to protect audio equipment from high voltage transients and RF interference. Three neon lamps indicate relative phasing of the line, neutral and ground connections. A latching relay helps to avoid amp/speaker damage due to power up transients generated after a temporary loss of power. Ask your local music dealer for more details.



**Linear & Digital
Systems, Inc.**

46 Marco Lane, Centerville, OH
45459 (513) 439-1758

Off the Record

Joaquin Lievano, who had worked with Jean-Luc Ponty, and who is most assuredly a man to watch, as one listens to the passionate, Santana-like "I Give My Heart To You" (my favorite selection and the one getting the most radio attention) will tell you; and drummer Steve Smith. Since Smith's main occupation is drumming for Journey, this provides another link between the records; and a final, and more ironic one, is that Hammer once played one of Carlos Santana's principal spiritual/jazz sessions with John McLaughlin, as well as having teamed up previously with one of Schon's principal predecessors in the brash young guitarist's club, Jeff Beck.

Coster's album, done in the new Fantasy studio D, with production assistance from Phil Kaffel ("he added some beautiful things," notes Coster) could be the ultimate fusion album, exhibiting both a catholic sensibility and a readiness to pour on the power where appropriate. And while it generally is not kosher to let a player review his own album, Coster's own comments are as enlightening as anything I might point out:

"I'm curious as hell to see which bin they'll put the record in. I wanted a fusion thing but I also wanted a rock element to the rhythm

section. I also wanted it to sound like a band album and not like a bunch of sidemen. So overall its sounds more contemporary than just a weak jazz group trying to play rock fusion.

Unless you really know it, some of my synthesizers sound exactly like guitars because they're played through Marshall bottoms and Hi-watt tops. I didn't want to have that clean synthesizer sound on some tunes. I wanted it to burn and have that distortion. Some of it sounds just like a guitar player going up and down the strings. This wasn't because I wanted to copy a guitar but because I like that sound and to be able to get it on a keyboard and to bend notes is like a dream come true for me. And I was able to try other things. On the final tune, for instance, "Ciao"—the only one written in the studio—I'm playing one synthesizer, an OBX-A, with two hands. Everyone thinks I overdubbed but it's one person playing it one time."

Needless to say, it is also the guitar/synthesizer matchups that dominate "Untold Passion," which was done at Hammer's own Red Gate Studio in Kent, New York, with Colin Hodgkinson assisting on bass. Schon does lead vocals on about half the tunes, and while Journey lead vocalist Steve Perry is in no danger, Schon acquires himself quite well, particularly for this genre. Best tune is the leadoff, "Wasting Time," which has the sort of power, presence, and thoughtful construction that so many of those crapsnot heavy British teamups like Robin Trower/Jack Bruce never get halfway close to.

—Jack McDonough

Consequently, the freshness and sparkle of Shannon's new album is a most pleasant surprise.

At the age of 41, Shannon's voice still sounds great, his tenor having lost little of its distinctive twang. There are some excellent cover tunes on *Drop Down And Get Me*, in particular a breezy, rolling "Sea Of Love" and a slowed-down treatment of Jagger/Richards' "Out Of Time," but most compelling are Shannon's six originals. He switches easily between fast rockers ("Sucker For Your Love" and the title cut), gorgeous ballads ("To Love Someone"), and mid-tempo numbers that build and swell with irresistible intensity ("Life Without You").

Just as they have shown repeatedly on their own albums and on Stevie Nicks' *Bella Donna*, the Heartbreakers provide consistently tasteful and restrained instrumental support for Shannon, who also chips in some rhythm guitar playing of his own. Considering the respect the band has always accorded to Sixties rock, it would be hard to find a better group to assist Shannon's renewed efforts.

Tom Petty's clutter-free production rightly highlights Shannon's usually double-tracked vocals. Like his own albums, Petty favors a clanging guitar sound that jangles excitedly through the mix. And although *Drop Down And Get Me* was recorded over a span from October, 1979 to February, 1981 (due to Petty's legal hassles and touring commitments), the album holds together with remarkable consistency.

Del Shannon deserved nothing less.

—Bruce Dancis

jensen transformers
By REICHENBACH ENGINEERING

**The Best
Direct Box Transformer
is Now Twice as Good.
the JE-DB-E
Unsurpassed Audio Quality**

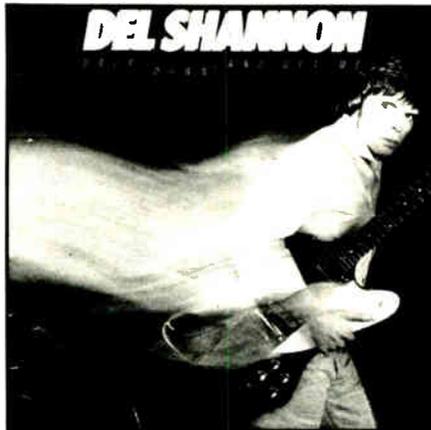
- Twice the level handling at critical low frequencies, (+19 dB @ 20 Hz).
- Half the distortion; less than 0.15% @ 20 Hz, decreasing by 1/2 for each octave higher.
- Very wide bandwidth for a clean top end (-3 dB @ 70 kHz).
- Two Faraday shields fight hum in the mixer and amp.; Mu metal case for 30 dB magnetic shielding; each shield has separate lead.



**SPECIAL PRICE \$32 ea.
Until March 1, 1982.
Call Bruce or Dave**

10735 BURBANK BOULEVARD
N. HOLLYWOOD, CA 91601
(213) 876-0059

(Visitors by appointment only - Closed Fridays)

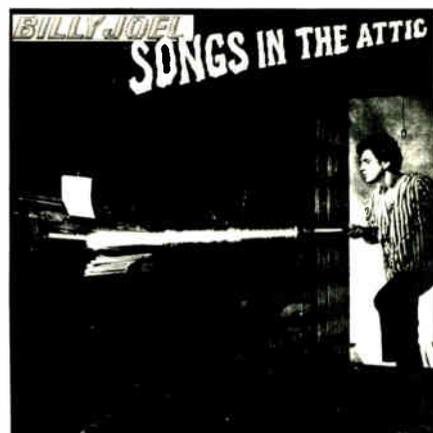


Drop Down And Get Me Del Shannon

Elektra, 5E-568

Produced by Tom Petty; engineered by Rod O'Brien, Dave Thoener, Brad Gilderma, and Roger Linn; recorded at Cherokee and Paradise Studios, Hollywood.

Just as Bruce Springsteen rescued Gary U.S. Bonds from endless Holiday Inn lounges, Tom Petty & the Heartbreakers have revived the flagging career of Del Shannon. Although Shannon has never stopped performing, his biggest hits—"Runaway" and "Hats Off To Larry"—were twenty years behind him.



Songs In The Attic Billy Joel

Columbia TC 37461

Produced by: Phil Ramone; concert recording produced by: Brian Ruggles; engineered in concert by: Elliot Scheiner and Jim Boyer; record by: The Tom Jung/Road-80 Recording Truck/3-M Digital.

Billy Joel's latest album, *Songs In The Attic*, has an unusual concept behind it. First a little background. Joel's first four albums had little commercial success with the only popular

cut being "Piano Man". Despite this, Joel has traditionally included many of these older tunes in his live concert repertoire. By the time of his most recent tour (summer of '80), these 'pre-Stranger album' songs had improved their quality to the extent that producer and friend Phil Ramone suggested to Billy that he consider redoing some of the best of these oldies in a live format with his current touring band.

Eleven of the best of these were selected from the live recordings that were done in the summer '80 tour. Ramone took the live tapes recorded by longtime Joel associate Brian Ruggles, and remixed them in several studios in New York. The result elicited these comments on the liner notes from producer Phil Ramone, "Some songs transcend the fickle tides of time. They hold up, retaining their impact and beauty and significance."

Having digested all the verbiage in the album package I sat down for a close listen. I should preface this by saying I am generally not a great fan of most live album attempts due mostly to the sound degradation and the often objectional audience noise. In this respect the album production gets top grades for sounding totally professional without losing any of the intensity of the concert hall. You forget that you are listening to live music until the audience roar reminds you that not only is it live, fella, but this wasn't recorded in anyone's living room either.

There are several things which make this such a good live album. First there is Billy Joel the singer and piano player. None of the subtlety of his vocal style or piano playing are sacrificed in the live setting. So many artists in the face of a sea of expectant fans abandon the subtle nuances of melody and the intricacies of their studio playing ability. They end up pounding away and wailing loudly to try and compete with the exuberant backup band and the noise of the fans. Not so with these songs and much of the credit for this should go to the band as a unit. The playing is carefully arranged to alternate between a driving full tilt rock sound and quiet uncluttered accompaniment to Joel's acoustic piano. The piano records very well here without hints of distortion or loss of transients.

The second thing which contributes to the quality of this live album are the songs themselves. With the possible exception of one or two cuts these songs could have been on any of Joel's most recent albums. The same talent for melody and lyric was there then as it is now.

Billy Joel manages to get a message across without sounding banal in the best tradition of Jackson Browne or even Bob Dylan. The Billy Joel motif of curled lip and defiant stance are in full view in these songs reminding the audience that the young BJ was as much of a rebel and a street fighter as he is now. (Who else would design an album cover, Glass Houses, with the artist throwing a rock at a picture window in his own house?). This defiant stance in his music makes for excellent live material and I heartily recommend this album. It's vintage live Billy Joel at his best.

—Steven Michaels

PREVIEW

(continued from page 70)

Programmable Patch Bay

The Programmable Patch Bay by AudioVisual Systems employs a modular printed-circuit design eliminating the need for prewiring by the user. The internal switch array allows the user to establish a basic signal path and insertion of only one or two patch cords then allows components to be added or rearranged at will. With Programmable Normalling®, 90% of normal patching requirements can be accomplished with only two front panel patch cords.

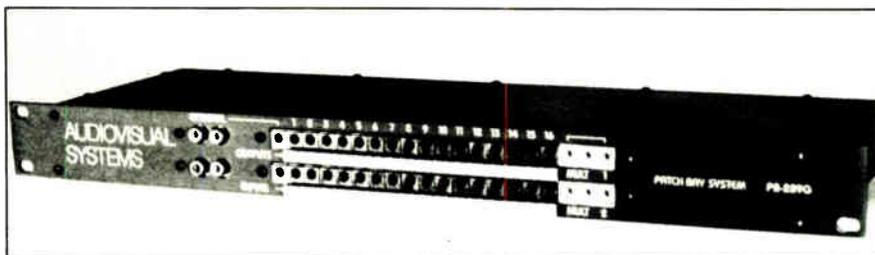
Gold-plated contacts throughout the PB289G Patch Bay ensure signal quality and maintenance-free operation. The

Patch Bay features sixteen two-channel inputs and outputs with 64 gold-plated phono connectors on the rear panel and 3-conductor Bantam® jacks on the front.

The PB289G is designed for stereo or balanced audio lines and video signals. Applications include recording studio use, sound reinforcement, audio and video tape duplication and processing, test equipment interfacing, synthesizer and keyboard expansion, and in audiophile home systems.

The PB289G Patch Bay System is contained in a 1¾" EIA standard rack package. The suggested retail price is \$650.00.

For more information, contact:
AudioVisual Systems
725 Lorraine Boulevard
Los Angeles, CA 90005
213/934-3006



Programmable Patch Box

JRF at your service

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

You need our services. 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.

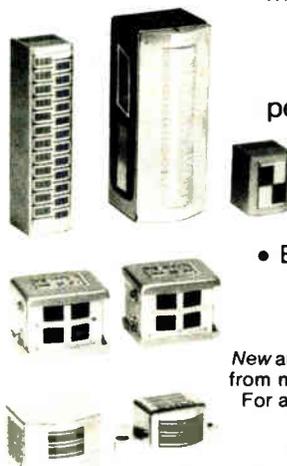
24-hour and special weekend service available.

- Broadcasting
- Mastering
- Recording Studios
- Tape Duplicating

New and reconditioned replacement heads from mono to 24-track . . . Many in stock. For additional information. Call or write:

JRF COMPANY

17 Byram Bay Road • Hopatcong, NJ 07843
201/398-7426



Equipment For Sale

The STICK® SHOWROOM features the Chapman Stick Touchboard® in stock, creative instruction, supplies, repairs and Stick-lore galore... 1014 17th AV. S., Nashville, TN 37212 Andy Widders-Ellis (615) 327-4981

USED NEOTEK RECORDING CONSOLES (28 x 24 some expandable) Series II & III's. Some demos only months old with factory warranty. All in excellent condition. \$20 - 30,000, NEOTEK WEST (213) 387-7999.

THE AUDIO GROUP, a full service Pro Audio Co., leaders nationwide in audio brokerage (buying & selling used equipment). Also dealers of pro line: 3M, Dolby, Audionics, Spectra Sonics, Eventide, Lexicon, Ivie, MXR, Shure, Sennheiser, etc. (212) 765-7790

CALL US LAST!

Find the best deal that you can, then call us. We guarantee the best prices on MXR, DiMarzio, Electro-Voice and more. At Audio, Light & Musical, it will not cost you a dime to call: (1-800) 446-8000.

FOR SALE: MCI 400 SERIES CONSOLE 24 x 24 \$17,500; DOLBY M16 \$9,000; TELEX 235 CASSETTE DUPLICATOR \$1,500; AMPEX 300 TRANSPORT \$500; PANDORA TIME LINE \$500—JIM (513) 681-8400.

3M M79 24 TRACK RECORDER WITH AUTO LOC. II, INCLUDES DELIVERY. \$26,500.00 (312) 644-1666/STREETERVILLE

ONLY MICROPHONES & HEADPHONES. Small ad, low prices, on Shure, Sennheiser, Audio-Technica, etc. Quick shipping via UPS. MICROPHONICS (212) 438-6400.

WANTED: Neve 8058-68-78 and/or Studer 24 track. Will consider full equipment package. Cash available. Private party. Reply: c/o Mix Magazine, PO Box 6395, Dept VR, Albany Station, Berkeley, CA 94706

Otari 8-track MX-5050D 1/2 inch tape recorder. Like New. Call Frank (415) 467-0345

ARE THE BEST DEALS IN THE WEST IN RENO?—You bet! Get East Coast prices but without East Coast shipping charges. Call or write for this months unprintable prices on Tascam Model 15 consoles, System 20 packages, Roland JP8's, Prophet 5, Rhodes & much more. Shop us. STARSOUND AUDIO/2679 Oddie Blvd., Reno, NV 89512 (702) 331-1010.

MIX CLASSIFIED

Otari MX5050-8, Clarke Custom Console 16 x 8 with patchbay, remote, Semi parametrics, etc., 2 Revox A77's, Sony 854-4, Ursa Major Space Station, ARP 2600 & Mellotron 300D (split keyboard 24 sends) (518) 237-3208 or (518) 447-5733.

MCI JH-10 24-track recorder w/remote 16 & 8 track heads. All good condition, well maintained. \$20,000. Ask for Kevin. (212) 631-1547



USED EQUIPMENT
Bought & Sold
List on request

SUMMIT AUDIO
P.O. Box 1678, Los Gatos,
CA 95031 (408) 395-2448

AMAZING CONSOLE OFFER

Tangent Model 3216 recording console with fully wired patch-bay and producer's desk 32 in and 16 out. 34 V.U. meters. Only 18 months old. Priced to sell. Mark (212) 684-3766.

Employment Offered

Head Engineer with extensive background. Needed for expanding studio in Phoenix, AZ. Send confidential resume plus salary requirements to: Manager: 8319 East Welsh Trail, Scottsdale, AZ 85258.

Recording Services

NASHVILLE'S BEST
in packaging & pressing. Top name clientele. References supplied. The ultimate ----
Chumley Productions, 2802 Foster Ave., Nashville, Tn. 37210

REAL TIME CASSETTE DUPLICATION by a pro recording studio! TDK & AGFA tape! Free boxes/labels Recorded direct from master! Sweetening & EQ Specialists! OUTBACK STUDIOS (415) 655-2110

PIANO STUDIO — TUNING

Lapiana in Manhattan, N.Y.C.
Rebuilding to Recordings fast expert concert tuners available for emergencies (212) 243-5762/275-7358

STARLIGHT SOUND STUDIO

Master Recording
in the
S.F. BAY AREA
(415) 236-2281

Studio For Sale or Lease

Highly profitable 8 track recording business for sale. Excellent reputation, large clientele, excellent equipment. In New York City—\$75,000. Call Martin or Larry (212) 260-5226.

Miscellaneous

BLANK AUDIO AND VIDEO CASSETTES
direct from manufacturer below wholesale. Any length cassettes. 4 different qualities to choose from. **BULK & REEL MASTER TAPE** from 1/4" to 2". Cassette duplication also available. VHS T-120's, \$11.25. Brochure. **ANDOL AUDIO PRODUCTS, INC.**, 4212 14th Ave., Dept. MX, Brooklyn, NY 11219 **TOLL FREE: 1-(800) 221-6578 ext. 4** or NY res. (212) 435-7322 ext. 4

AGFA, TDK, & BASF loaded cassettes, mastering tape & related products at extremely competitive prices. Call or write: Walt Neal Musical Products, 1059 Huckleberry Ct., Sunnyvale, CA 94087 (408) 730-TAPE or (408) 738-3445.

AGFA MASTERTAPE AND CASSETTES. Super prices. Example: 1/4" x 2400' bulk = 9.82 and C-60 for 86¢ (case quantities) send for wholesale price list.

Solid Sound, Inc. Box 7611 Ann Arbor, Mich. 48105 (313) 662-0667

RECORD PRESSING. Low package prices on top quality LP's, including mastering, matrix, labels, jackets. Check us first.

H.R. Productions (415) 930-7573.

SPECIAL STUDIO PACKAGES!

For all uses. Photos CAN improve your cash flow. As low as \$175. Hire a pro. Call or write for more info: Gale Warming Photography 333-20th Ave., S.F. CA 94121 (415) 386-5708

DISC MASTERING—Cut from your Tapes at Low Cost—Plating, Pressing, Labels, Jackets—Full Production—Send for Free Info or call THE CUTTING EDGE Box 217, Ferndale, NY 12734, (914) 292-5965.

SUBSCRIBE to the MIX

The Recording Industry Magazine. See page 74 for a subscribers coupon and use the handy self mailer. Do it today!

GET IN ON THE ACTION MIX CLASSIFIEDS

There are 6 lines to the inch and approx. 30 characters to the line. \$50 per inch—1" (min.). Additional lines: \$10 per line.

Important: Please type or print in CAPITAL LETTERS and lower case where you want the same to appear in your classified ad.

Bold Type: \$10 per line. Black border: \$10 extra. Logos or display advertising up to 4" will be charged at \$75/inch. Multiple insertion rates available.

DEADLINE: 5th of the month preceding each issue

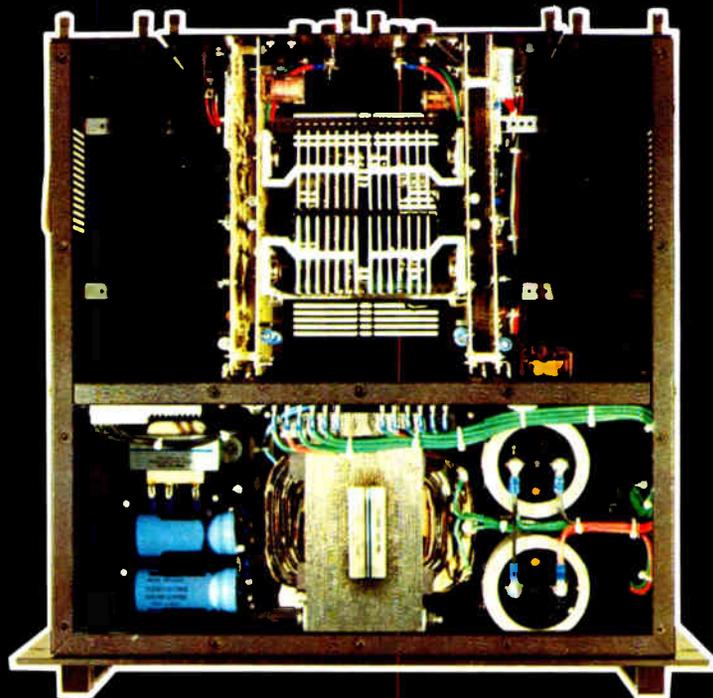
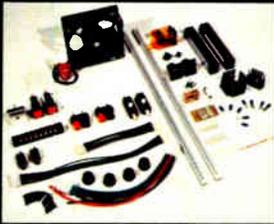
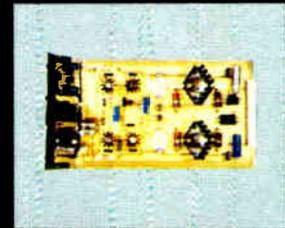
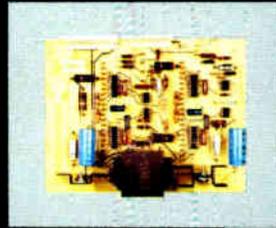
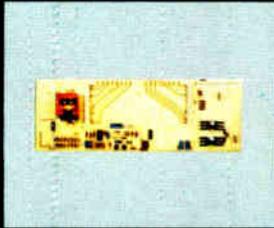
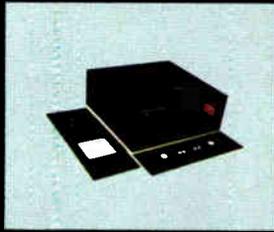
Categories Available:

EMPLOYMENT OFFERED, EMPLOYMENT WANTED, EQUIPMENT FOR SALE, EQUIPMENT RENTALS, EQUIPMENT WANTED, INSTRUCTION, MAINTENANCE SERVICES, RECORDING SERVICES, REHEARSAL SPACE AND MISCELLANEOUS.

PAYMENT BY CHECK OR MONEY ORDER MUST ACCOMPANY AD.

For your convenience, we now accept VISA & MasterCard (for such payment, please accompany ad with your name, address, card number and expiration date). Send to or call: Gale Rosenberg—Mix Publications, 2608 Ninth St., Berkeley, CA 94710 (415) 843-7901.

THE GESTALT PRINCIPLE:



“THE
WHOLE IS
GREATER
THAN THE
SUM TOTAL
OF ALL
ITS PARTS”

GESTALT SAID IT — PULSAR DID IT!

PULSAR'S PROFESSIONAL POWER AMPLIFIERS OFFER:

- The industry's first three-year transferable warranty
- On-the-spot replacement of all driver and output circuitry within 15 minutes — without soldering!
- The largest SOA in the industry
- The most rugged built amp in the business
- Unequaled overall specifications
- Thermal stability — amp will not shut down until transistor case temperature exceeds 230° F
- The only amp designed to accept internal signal processing cards
- Direct coupled, full complimentary, differential input circuit design
- 4 protection circuits with independent power supply
- Road case designed for spare driver and output cards
- Factory hotline — air shipment of module cards in 24 hrs. upon warranty verification

PULSAR LABORATORIES, INC. • 3200 GILCHRIST RD

PULSAR

MOGADORE, OHIO • 44260 • (216) 784-8022

World Radio History

The new UREI Series "A" Time-Aligned™ monitor systems and their equals, the UREI Listening Amplifiers.

For the purest sounds you've ever heard, audition the critically engineered and listener proven UREI professional monitoring systems.

Now available with your choice of three accurate Time-Aligned™ monitors and four sonically superb power amplifiers.

From small intimate listening situations to the most spacious environments... from studio control rooms to massive sound reinforcement, the solution to critical music reproduction for the audio professional is awaiting your evaluation at your authorized UREI dealer.

Evaluate the combined technology of a total UREI monitoring system and you will know and appreciate why your peers have made UREI the *new monitoring standard*.

®Time-Align is a Trademark of E.M. Long Assoc., Oakland, CA.
All referenced Trademarks are property of, or licensed by,
United Recording Electronics Industries, a URC Company.

UREI: The NEW Monitoring Standard

UREI From One Pro To Another

United Recording Electronics Industries, a URC Company
8460 San Fernando Road, Sun Valley, California 91352
(213) 767-1000 Telex: 65-1389 UREI SNVY
Worldwide: Gotham Export Corporation, New York
Canada: E. S. Gould Marketing, Montreal

See your professional audio products dealer for full technical information.

