

MAY 1983
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THE RECORDING INDUSTRY MAGAZINE

Mix

Interview: Randy Newman

**Listings:
Northeast Studios
Special Report:
Mixing Consoles**

**Jerry Wexler
Donald Fagen/Gary Katz
Echo, Reverb & Delay III
Harry Nilsson
King Sunny Adé**

World Radio History

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Cover:
Founded in 1968 by Joe Tarsia, Sigma Sound operates four studios in New York City and six in Philadelphia. Shown here is the 48 track Starship One, in Philadelphia - a recent total rebuild of Studio One which was first built in the mid fifties.

Photo by:
Arthur Stoppe

Corner photo by:
David Gans

DEPARTMENTS

- 5 FEEDBACK
- 6 CURRENT
- 8 SESSIONS
- 74 LUNCHING WITH BONZAI: HARRY NILSSON by Mr. Bonzai
- 93 BOOKSHELF
- 100 PREVIEW
- 108 CLASSIFIEDS
- 110 ADVERTISERS' INDEX

LISTINGS

NORTHEAST RECORDING STUDIOS

- 28 LOCATION INDEX
- 30 4 & 8 TRACK
- 35 16 TRACK
- 42 24 TRACK

VIDEO

- 104 VIDEO NEWS by Mia Amato
- 106 VIDEO INTERFACE by Neal Weinstock

AUDIO

- 10 MIXING CONSOLE FORUM by George Petersen
- 22 NORTHEAST RECORDING UPDATE by George Petersen
- 68 PRODUCERS' DESK: JERRY WEXLER by David Schwartz
- 82 ECHO, REVERB & DELAY, PART III by Ken Pohlmann
- 82 DIGITAL DELAY/ REVERB DEVICES by George Petersen

MUSIC

- 62 DONALD FAGEN by Bruce Pilato
- 64 GARY KATZ by George Petersen
- 71 RANDY NEWMAN by David Gans
- 79 COMPUTER TOOLS FOR MUSICIANS by Don Preston
- 94 MUSIC NOTES
- 98 PLAYBACK



JERRY WEXLER
Page 68



MIXING CONSOLE FORUM
Page 10



HARRY NILSSON
Page 74

MAY 1983

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INDUSTRY STANDARD

CHAPTER II

The New Otari 1/4" Two Channel 5050B-II

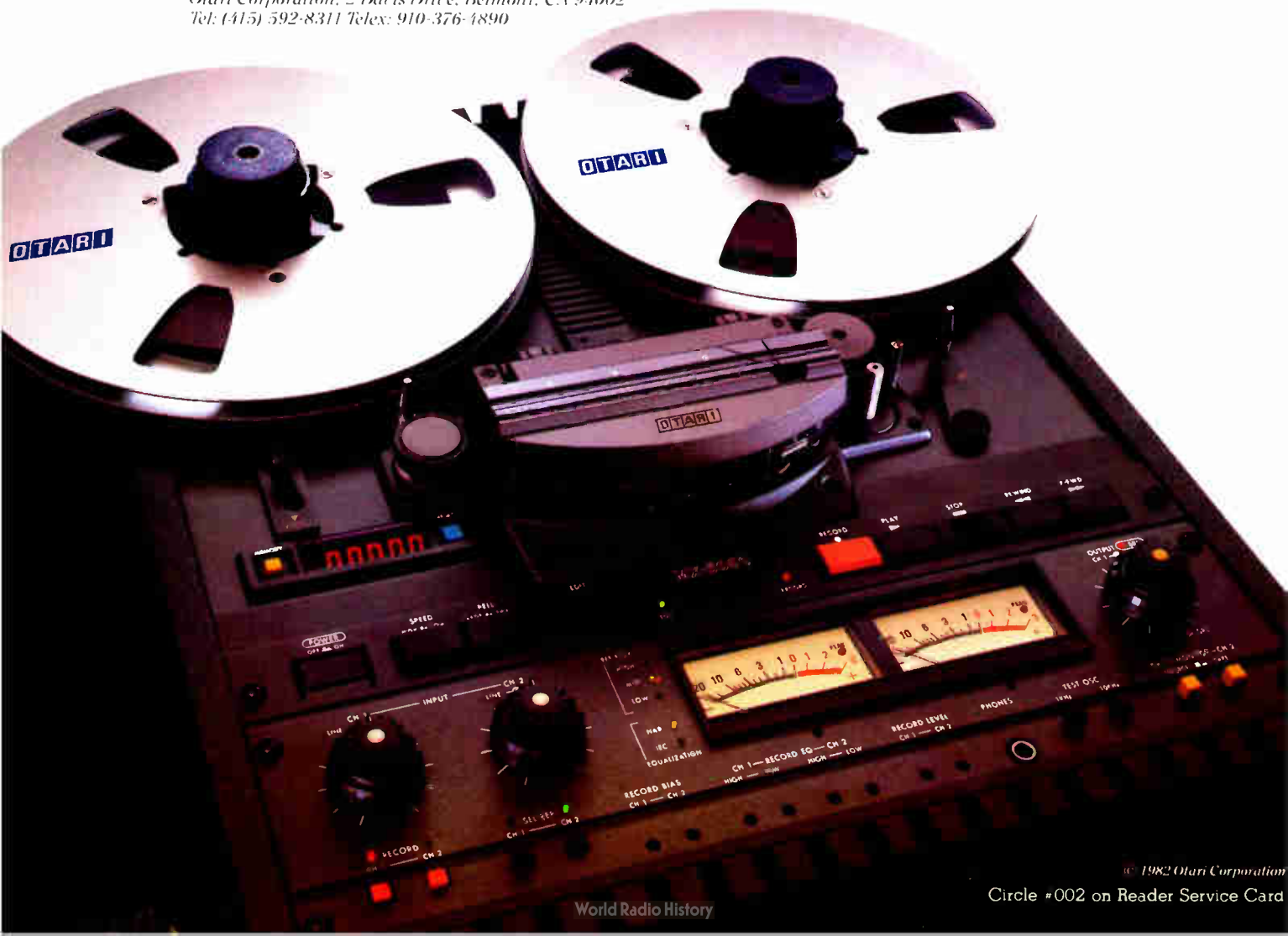
The best selling professional two track audio recorder has finally been improved. We've added the refinements you asked for: The inputs and outputs of the new B-II are transformerless, balanced. The elapsed time indicator is a real-time hours/minutes/seconds L.E.D. display—tape accurate at all speeds. The built-in oscillator provides both 1k1Hz and 10k1Hz calibration tones. And we added a low frequency adjustment to the reproduce equalizers.

Behind the clean, new look of the B-II are the same features, performance and reliability you expect from our famous 5050B. We didn't change the rugged quarter-inch thick deckplate or the cast aluminum frame. We kept the switch selectable NAB/IEC equalization, +4dBm/-10dBv output levels, half-track and quarter-track playback heads and three standard reference fluxivity levels. And, of course, the B-II still features three tape speeds, XL type connectors, front panel record equalization and bias adjustments, variable speed, "dump edit" function, and an integral splicing block.

The 5050B-II has been engineered like no other tape machine in the world. When you check out the specifications you'll know why we say it's the best \$5,000.00 tape recorder available for under \$2,500.00. When you work with it, you'll know that we've just raised the industry standard.

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Dear Mix,

In reply to Jeffrey Yoder's letter in the February issue requesting music and digital/analog references, I would suggest contacting Bernie Hutchins, the head contact of the Musical Engineering Group, 1 Pleasant Lane, Ithaca, NY 14850. I was an EE major at Cornell when I met Bernie. He publishes a newsletter for people who build analog and digital synthesizers at the hobby level. His newsletter has excellent articles on analog filters, digital modulation, sampling and control; and very practical aspects of electronic sound manipulation. There may be too much hardware for some but his mathematical discussions on analog and digital filters are rigorous and very informative. Anyone who does custom mods or builds convenience circuits into their equipment can likely get some real gems out of the newsletter.

Jerry Bowes
 USS Permit (SSN-594)
 FPO San Francisco, CA 96675

P.S. — Your article in February about Suzanne Ciani was great. I would like to contact Ciani/Musica, Inc. Please send me an address or phone number.

For more information contact Ciani/Musica at (212) 246-6625.

Dear Mix,

Regarding Suzanne Ciani (Feb. '83): I'm happy for her success, but I'm dismayed that she (or any artist) would do work for the Defense Department. Can you imagine a more profound corruption of what art and artists are about? Anything that helps the war industry more efficiently plan for the destruction of the world should be shunned. I'm sure they pay well, but there's more to life than money. Living, for example.

Sincerely,
 Richard Emmet
 Venice, CA

Dear Mix,

I have read with interest your article on Investing in Video by Neal Weinstock in Vol. 7, No. 1. Since the article is on how and where to find financing for expansion, I would like to pass on another probably more viable option than rich uncle, venture capital, or bank loans, which is equipment leasing.

This is another avenue for needed capital which does not affect bank credit lines or require offsetting balances. Equipment leasing can offer competitive rates with tax consequences, generating rates sometimes below prime. This allows one to utilize new equipment productivity and yet it pays for itself.

Sincerely,
 Richard Lowe
 Keystone Leasing Corporation
 Indianapolis, IN

Dear Mix,

I would like to say that I find the MIX Magazine one of the best informative aids to the recording industry today. Please keep up the good work.

I would also like to say that I found the article (Getting That Drum Sound) on page 66 in your February '83 issue to be one of the best articles on drums that I have ever read.

I really look forward to each and every issue of the Mix, knowing that I will learn something new every time. Keep on sending them, and thank you again.

Sincerely,
 Keith A. Gutschwager, President
 Kewall Recording & Records
 Bayshore, L.I., NY

Correction: In our April issue we incorrectly printed the address of Regent Sound Studios, Inc. in their advertisement on page 119.

It should have been:
 1619 Broadway
 New York, NY 10019
 We apologize for the error.

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CURRENT

Eindhoven AES Sets Attendance Records, Draws Controversy

With 3,346 people attending from 40 countries, including several Eastern bloc nations, the 73rd Convention of the Audio Engineering Society March 15-18 in Eindhoven, Holland, drew the largest group ever for its European setting, up nearly 40% from last year's event in Montreux, Switzerland. Exhibitors numbered 123, and 50 technical papers were presented.

The AES Convention, which, in addition to its U.S. gatherings, meets once each year in a different European location, has been designed for audio industry professionals to share their research and ideas through technical paper presentation, professional equipment exhibits by manufacturers and the opportunity for personal contact with others in the industry. While American venues for the event have remained consistently in the New York and Los Angeles areas, the European version has varied to allow wider participation where the feasibility of travel is considered more limiting than in the U.S.

Choosing Eindhoven, a city of about 200,000 and home of the giant electronics firm, Philips, as this year's host city aroused complaints from some for its provincialness, its limited accommodations and ability to support the technical

and logistical requirements of such an advanced meeting and exhibit situation. Holland had been selected as the site for this convention over two years ago, with Amsterdam, The Hague, and Eindhoven all considered as possible locales. The decision to meet in Eindhoven was explained by AES President, Dr. Tom Stockham: "We make it known that if there are people who would like to host the convention, either from the point of view of a municipality or an AES section, or a company with great resources, that they come forward so we can consider that and act accordingly. In this case there were several major factors operating: First of all, Philips is a very prominent company in the audio area, both with their partly-owned record company and with their audio equipment manufacturing. Also with the Compact Disc (which Philips co-developed with Sony) coming on the horizon right now and with the decision to meet in Holland, everything added up."

Executive Director of AES, Donald J. Plunkett, followed up the decision with an examination of the facilities and accommodations in Eindhoven and determined that they were suitable for the event.

Another controversy generated at this convention was the decision to return to two annual conventions in the United States, rather than the single event format which was voted in 1981. The original change to one U.S. show was largely an accommodation to the many manufacturers who exhibit at AES and bear the rising costs of travel and maintaining expensive exhibit space as the number of industry shows increase and the economy continues its weakness. In that light, many manufacturers feel that the AES reversal on this issue will be an undue burden. Stockham states the AES position: "We've had problems in the past with exhibitor frequency, too many exhibits and so on. But since we've reduced the number of U.S. conventions we're now having other problems. One is that some (small or regionally-based) exhibitors are only being able to show their new ideas to the other members of the society once every 24 months, and they never realized what kind of difference that would make to them in terms of having people understand their concepts and their efforts.

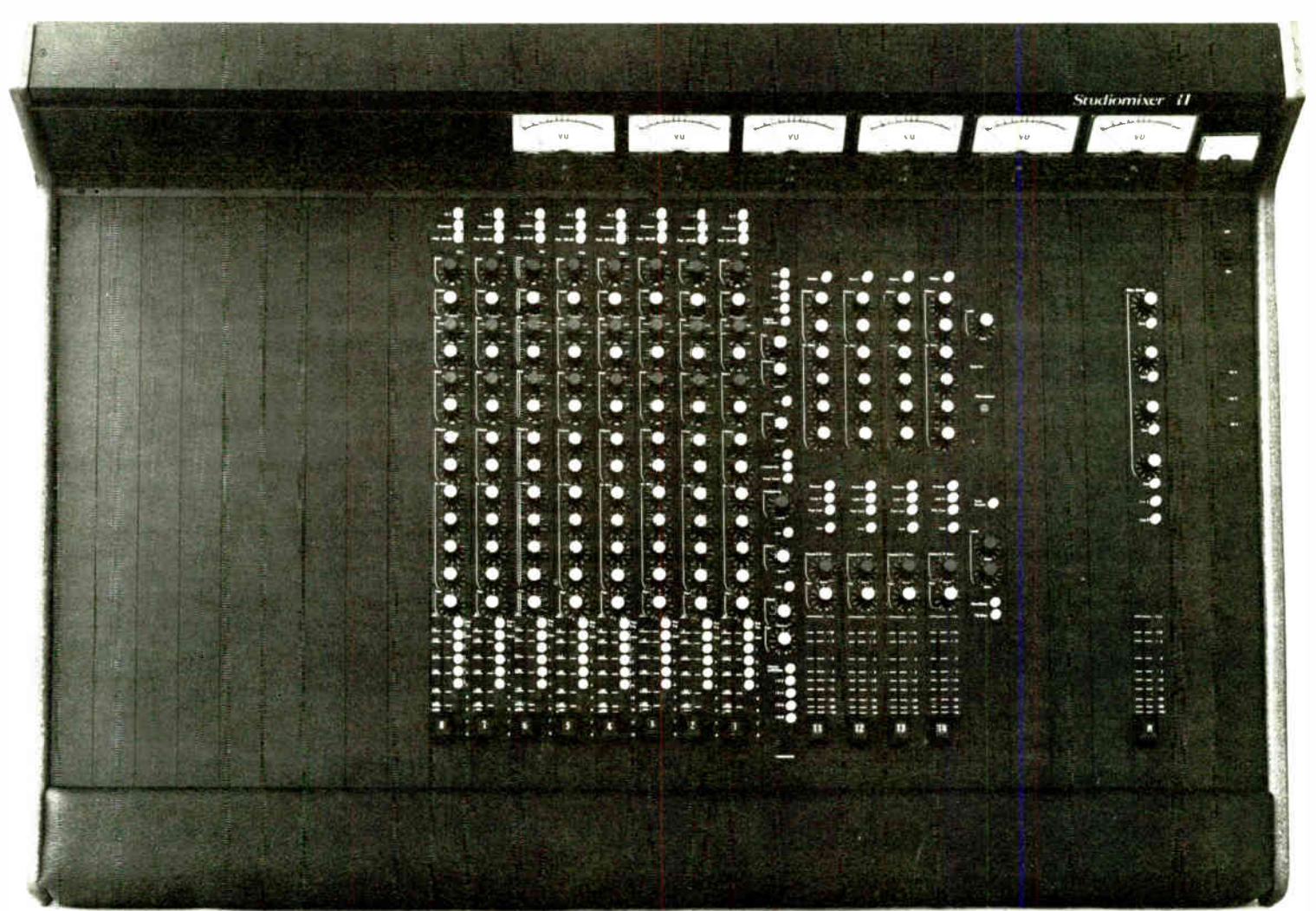
"The other thing is that the members in and around the larger centers of New York and L.A., which includes a radius of several hundred miles for each, are complaining that they are not able to participate in AES like they once were. They feel as if the society has disappeared, in part, and general participation in the society has decreased. We've made a fairly careful study and discovered that we are down significantly more than just the general economic situation would predict. So while we tried to solve some problems for the exhibitors in 1981, we see that we have developed other very serious problems that, if left unchecked, will eventually leave us with no problems at all, if you know what I mean."

Citing education as the main goal of AES, Stockham pointed to the strong need for the Society to stretch out to serve its membership. He indicated that the first regional meeting was being formulated for Australia and that Japan had been scheduled for the Spring convention in 1985. "The biggest need right now with the changes in the industry," according to Stockham, "is to get people together and get them informed about what their business is becoming. A lot of people are not in the mainstream of the new digital activities, and they feel left out. We feel it is a responsibility of the Society right now, for maybe the next five years, to give the membership an extraordinary opportunity, without investing a lot of time or money, to find out what they need to know. That's going to take some extra effort and so we feel that is another reason to restore the frequency of meetings in the U.S."

notes

Kenneth C. Davis has acquired *Quad Eight Electronics* and will assume the duties of President, while *Quad/Eight* founder, *Bud Bennett*, will remain with the company as Chairman of the Board. . . . *Soundcraft Electronics* has announced the move of its U.S. sales office to 1517 20th Street, Santa Monica, California, 90404. . . . *Harmon International Industries* has completed acquisition of the URC companies, which includes *UREI*, *Teletronix*, *Coast Recorders* (San Francisco) and *United Western Studios* (Los Angeles). . . . *Crown International* has appointed *A. C. Simmonds and Sons Ltd.* as Canadian distributor for their high fidelity and professional products. . . . *Jim Cassily*, CEO of *EXR Corp.*, has reported the merger of his company with *Warren E. Avis Enterprises*. *Avis* is founder of *Avis Rent-A-Car*. . . . The *Muscle Shoals Music Association* will be holding its sixth annual *Records and Producers Seminar* at Joe Wheeler State Resort, May 11-13. Call 205/381-1442 for details. . . . At *Bonneville Productions*

in Salt Lake City *Brian Gallagher* has been named Director of Engineering and *Merrill Jensen* has joined as Director, Music Production. . . . *Hy James* - The Audio Professionals has relocated to 24166 Haggerty Road in Farmington Hills, Michigan, 313 471-0027. . . . The *Midwest Music Exchange* is slated to present its second annual record/music industry symposium in Chicago June 24-26. Call 312/440-0860 for information. . . . *John Williamson* has been appointed President of *Sound Technology, Inc.* . . . *Hill Audio* has moved their American offices to 231 Marquis Ct., Lilburn, GA 30247, according to *Dave Ash*. . . . *Glenn T. Herb* has been named Vice President of Engineering at *BTX Corporation*, responsible for all new product development, quality control and service. . . . *Samuel M. Broadhead* has been named executive vice president and general manager of *KM Records*, the Burbank-based custom and audio-ophile record pressing company.



Announcing Some Major Changes

The first is our name. From May of this year onward, **Studiomixer** will be known by the new trademark of **TMS Studiomixer**. We hope that TMS will substantially identify us as from other products available in the mixer marketplace. Our quality and features already do.

Secondly is our product line. **Studiomixer II** is being joined by two new consoles. The first is a small, standard 19 inch rack mount unit which is still *Totally Modular* and economically priced. With a maximum of 4 submasters and 3 auxilliary busses, this mixer can accommodate most small recording studios and club bands, or even be used on location for cinema or television production with our portable power supply, also rack mounted. And with another rack kit, it can more than double its module complement. Our new top line console will be the serious recordist's dream. Known as the **TMS Studiomixer III**, its in-line format will offer expansion to 24 outputs if desired with 6 auxilliary busses, VU meter or optional liquid LED metering, and tantalizingly priced at about \$12,500 for a 30X24X6X2.

The third change is to several of our specifications. We have begun using a 5534 chip at crucial stages in the console circuitry and can now boast a minimum signal-to-noise ration of 83dB throughout the product line, a 7 dB improvement from previous models. Our consoles perform with virtually no slew limiting, input through output, at +4 or -10dB, and with either balanced or unbalanced outputs. Quiet, reliable mixers in any price range.

With these exciting new changes, **TMS Studiomixer** now offers something for everyone, including existing **Studiomixer II** owners. Any console we have sold thus far can be upgraded to our current, improved specifications. And we'll even put a new TMS logo on your existing console! We promised you that we would continue with our *Totally Modular* philosophy. With our two new consoles and our continuing personal attention to each of our customers, we hope to be able to welcome many sound professionals to the ranks of our satisfied, **TMS Studiomixer** users, soon.

TMS Studiomixer
P.O. Box 5036
Anaheim, California 92804
(714)630-6611

World Radio History

SOUTHEAST

The *Artisan Recorders'* Mobile Unit out of Pompano Beach, FL, was on location at the Burt Reynolds Dinner Theater in Jupiter, FL, to record country artist *Tammy Wynette* live in concert; produced by *Bob Kaminsky* for DIR Broadcasting. *Peter Yianilos* engineered, assisted by *Kevin Ryan* and *Rey Monzon*. . . . Activity at *Emerald Sound* in Nashville, TN, includes *England Dan* with *Kyle Lenning* producing, *Joe Bogan* engineering, and RCA recording artist *Louise Mandrell* with producer *Eddie Kilroy* and engineer *Tom Pick*. . . . Recent activities at *Pace Sound Company's* Secret Studio in New Orleans, LA, includes a new album by the Baton Rouge based *Copas Brothers*. the LP was produced by *Sherman Bernard, Jr.* and engineered by *Glen Himmaugh*. . . . Current studio activity at *Music City Music Hall* in Nashville, TN, includes: *Jerry Reed* cutting tracks with his band for a *Jim Owens Production* TV special. Engineer *Bill Vandevort* is behind the board. *Arthur Smith Studios* in Charlotte, NC, reports *Tommy Faile* is completing tracks for a two album set produced by Faile and *David Floyd*, executive producer is *Nick Hice* of HMC Records. . . . At *Mark Five Studios* in Greenville, SC, producer *Joe Huffman* was in for final mix on a new *Danny Gaither* LP; engineer was *Eddie Howard*. Jay Banks doing track session on his new LP project for *5th Wheel Productions*, *Eddie Howard* producing/engineering. . . . At *The Shock House* in Nashville, TN, *Bill Carmack* laying tracks with *Mike Shockley* producing and engineering. *Liz Anderson*, *Brian Ford*, *Gary Clute*, *Glen Connors* and *Joanna Clark* each working on projects with *Casey Anderson* of the A Team producing and *Jon Hines* engineering. . . . *Eagle Studios* in Nashville, TN, is currently finishing up mixes on the soundtrack album for the musical "Beauty for Ashes" - *Bob Farnsworth* producing, with engineers *Penn Singleton* and *Billy Crockett*. Jingle demos have included products such as Gatorade, Oldsmobile, Goodyear, Old El Paso, Oscar Mayer, Dodge and Purina, all written and produced by *Hummingbird Productions*. . . . Recent activity at *Stonebridge Recording*, Maryville, TN, includes demo work by Knoxville musicians *Mark Wyrick*, *Mike Sanders*, *Mark Leach* and *Mike Turner*. Also recording were the *Primo Dopes* (George David Hook, drums; David Nichols, bass; Todd Steed, guitar and Brian Walshlager, vocals). All sessions engineered by *Michael Ishibashi*.

SOUTHWEST

Dallas engineer/producer *Phil York* is busy with the record industry in Texas. Recent projects include critical mixdowns on Houston rock group *Automatic* at *Omega Audio* in Dallas, *Danny Byram's Troubador* project at *Platinum City* in Dallas. . . . *Chaton Recordings* in Scottsdale, AZ, recently hosted *Reggie Jackson* when he

taped seven radio spots for Pentax cameras, featuring the Sport 35 camera. Reggie is the official spokesperson for Pentax and the Sport 35 is the official camera of the California Angels. . . . This month at *Rivendell Recorders* in Pasadena, TX, Houston news personality *Amanda Arnold* completed mixing her LP project *Carter Burnett* is producing *Diana Castros'* premier EP recording. *Paul Mills* engineered the Pop/Ballad and R&B dance tunes. . . . Recent activity at *Crystal Clear Sound* in Dallas, TX, sees *Erick Tagg* singing on a demo for *John Carey*, and *Sara Pesner* working on a demo of originals, both with John Carey engineering. . . . *Omega Audio's* 24 track facility out of Dallas, TX, recently travelled to Cleburne, TX, to record *Jerry Clower* in concert for a new album release. *Snuffy Miller* produced; engineering was by *Paul Christensen*, *Marvin Hlavenka*, and *Charlie Cisco*.

NORTHWEST

Presently in the studio at *Startrax* in Las Vegas, NV, *John Will & the Family Tradition* working on their new album recorded and mastered entirely at Startrax; *Larry Read* engineering, *Rich Yurke*, *John Wills* producers. . . . At *Fantasy Studios* in Berkeley, CA, Virgin Records' artist *Shooting Star* is in its final week of mixing its up and coming fourth album. *Kevin Elson* has been producing and engineering with *Wally Buck* assisting. . . . Recent projects at *Marin Sound* in San Rafael, CA, include four original songs by singer and keyboardist *Jesse Bradman*, a demo for Tahoe-based rockers *Cedro Willie*, produced by Huey Lewis and the News bassist *Mario Cipolina*, all working with engineer *Dr. Richie Moore*. . . . At *Triad Recording Studios*, Eugene, OR, jazz/fusion guitarist *Don Latarski* into final mix for album to be released on Pavsia Records, featuring *Jeff Holman* on saxophone, and keyboard work by *Don Siegal* and *Tom Grant*. Produced by *Don Ross* and *Don Latarski*, with engineering by Don Ross. . . . In San Francisco, CA, two member of *Romeo Void*, *Debora Iyall* and *Benjamin Bossi*, were in *Hyde Street's* Studio D, working on a project for KUSF Radio. Iyall did vocal overdubs and Bossi laid down sax parts. *Mark Wallner* was the engineer. . . . At *Russian Hill* in San Francisco, CA, *Collage* is in Studio A, working on horn parts for their upcoming release for Solar Records. *Nicholas Caldwell* producing, *Richard Greene* engineering, *Marnie Moore* assisting. . . . At *Peter Miller Studios* in San Francisco, CA, *Dial Nine* in working on demo tape.

SOUTHERN CALIFORNIA

Linda Ronstadt is putting the finishing touches on her album of '30s and '40s torch songs at *The Complex* in West Los Angeles. Principal work on the album, which features Ronstadt backed by Nelson Riddle's 50-piece orchestra, was completed earlier this year. Produced by *Peter*

Asher, the project is being engineered by *George Massenburg*. . . . The cast of the *Los Angeles Children's Theatre* production of *I Will* is recording the original cast album at *That Studio* in North Hollywood. *Jerry Ray*, of Jerry Ray Productions, is producing with *Rick Holbrook* engineering and *Robbi Pfeifer* assisting. . . . At *Britannia Studios* in Hollywood, *Snuff Garrett* and *Steve Dorff* producing for Warner-Viva a debut LP with *Ray Price* and a new album for *David Frizzell*. Engineering done by *Greg Venable* and *Russ Bracher*. . . . *Bette Midler* is currently at *Clover Studio* in Hollywood working on her upcoming album for Atlantic Records. *Chuck Plotkin* is producing, *Toby Scott* is engineering, with *Steve Brix* assisting. . . . At *United Western Recording Studio* in Hollywood, *Joey Gallo* of Silverspoon Production Inc., producing *Wet Betty*. *Foster Sylvers* producing *Micki Free* for Silverspoon Production Inc. *Jim Shifflett*, *Jim Perkins*, *Gary Boatner*, engineering. . . . At *The Village Recorder* in West Los Angeles, *Tommy Tutone* on CBS Records with producer, engineer *Ed Thacker*, assisted by *Clif Jones*. . . . At *Sebnet Recording Studios* in Hollywood, 'tda creatives' doing projects for Gold Circle Stores, Jean Scene Stores; *Ramey Communications* with projects for Purex, Lakerol. . . . At *Skip Saylor Recording* in Los Angeles, the hard rock group *Uranus* with producer *Skip Saylor* in recording an LP for Nick Lanphier Productions. *Jon Gass* engineering.

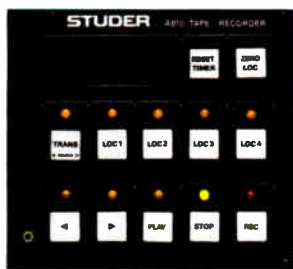
NORTHEAST

(see Roundup, page 26)

NORTH CENTRAL

At *Willow Wind Productions*, Bartonville, IL, the band *Eargazam* has completed their new album titled *Tumblin' Dice*. It was engineered by *Larry Wilson*, produced by *Roger Anderson*, *Dave Stanton*, *Pete Parkhurst*, *Larry Wilson*. . . . At *the Disc Ltd.* in East Detroit, MI, *Carl J. Vest* and *Samikel DeLeon* are producing funk group *You*. *Earl Size* is engineering with assistance from *Jimmy Lifton*. . . . Recent recording activity at *Pinebrook Studios* in Alexandria, IN, includes: *Tim Smith*, *Joe English* (string overdubs for the new Joe English Band album); *Rick Powell* (orch. tracks). Engineers working on these projects: *John Bolt*, *Steve Archer*, *Jim Sheller*. . . . At *Studio A*, Dearborn Heights, MI, artist *A.J. Sparks* working on a self-produced project for Moonstone Productions. Ren Cen Records cutting "Ain't Nothing but a Meatball" for release on *Skywalker*. *Eric Morgeson* at the console for all sessions. . . . Recent recording activity at *Soto Sound Studio*, Evanston, IL, includes *Jerry* and *Claudine Soto* working with the sounds of *Johnny Clifton* and those of the *Asphalt Rockers* who have returned to the studio to record "Something's Got to Give" and "Where Is the Savior?"

Studer Re-States the Art



With the new A810, Studer makes a quantum leap forward in audio recorder technology. Quite simply, it re-states the art of analog audio recording.

By combining traditional Swiss craftsmanship with the latest microprocessor control systems, Studer has engineered an audio recorder with unprecedented capabilities. All transport functions are totally microprocessor controlled, and all *four* tape speeds (3.75 to 30 ips) are front-panel selectable. The digital readout gives real time indication (+ or - in hrs, min, and sec) at all speeds, including vari-speed. A zero locate and one autolocate position are always at hand.

That's only the beginning. The A810 also provides three "soft keys" which may be user programmed for a variety of operating features. It's your choice. Three more locate positions. Start locate. Pause. Fader start. Tape dump. Remote ready. Time code enable. You can program your A810 for one specialized application, then re-program it later for another use.

There's more. Electronic alignment of audio parameters (bias, level, EQ) is accomplished via digital pad networks. (Trimpots have been eliminated.) After programming alignments into the A810's memory, you simply push a button to re-align when switching tape formulations.

The A810 also introduces a new generation of audio electronics, with your choice of either transformerless or transformer-balanced input cards. Both offer advanced phase compensation circuits for unprecedented phase linearity. The new transport control servo system responds quickly, runs cool, and offers four spooling speeds.

Everything so far is standard. As an option, the A810 offers time-coincident SMPTE code on a center track between stereo audio channels. Separate time code heads ensure audio/code crosstalk rejection of better than 90 dB, while an internal digital delay automatically compensates for the time offset at all speeds. Code and audio always come out together, just like on your 4-track. Except you only pay for 1/2" tape.

If you'd like computer control of all these functions, simply order the optional serial interface. It's compatible with RS232, RS422, and RS422-modified busses.

More features, standard and optional, are available. We suggest you contact your Studer representative for details. Granted, we've packed a lot into one small package, but ultimately you'll find that the Studer A810 is the most versatile, most practical, most *useable* audio recorder you can buy.

The Swiss wouldn't have it any other way.



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World Radio History

MIXING CONSOLE FORUM

PART 1

TECHNOLOGIES FOR THE '80s

by **George Petersen**

If a recording studio could be compared to a living being, then surely the mixing console would be the central nervous system of that organism. The paramount importance of the console to a studio's overall operation is exemplified by the enormous amount of time engineers spend at the board. The console becomes the physical extension of an engineer's creative energies, just as an artist wields a brush or pen.

Over the past twenty years, as the number of available recording tracks has grown, mixing consoles have likewise evolved in complexity. Yet today's consoles, equipped for myriad signal routing, metering, and processing functions, still serve the same basic purpose as their earlier ancestors. The main differences (other than the numbers of inputs/outputs) between the generations lie in improvements in sound quality, monitoring, and signal grouping, as well as automation flexibility.

Presently, the recording industry is in a state of transition, with the advent of new technologies: digital recording, video fusion, time coding, and the integration of computers into the studio environment. This Mixing Console Forum was designed to allow rep-

resentatives of various manufacturers the opportunity to air their views on the future of console technology and how their products reflect this trend. Due to space limitations, part two of this forum will appear next month.

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ALLEN AND HEATH BRENELL

by **Chuck Augustowski**

Allen and Heath Brenell builds high quality/high reliability mixing consoles at affordable prices. Rather than using technology which would take our mixers out of the realm of those who can use our products, we chose to use established technologies to keep our consoles affordable. This is not to say we are not staying current. In fact, we have a separate R&D department specializing in digital designs. We only make use of new technologies after reliability has been proven, and pricing fits the market we are trying to reach. This results in the best possible product within each console series.

Both of our newest models, the 21 Series stereo/mono mixer (available in 6, 12, 18, and 24 input formats) and our 8 buss System 8 (which includes model 1616 for 16 track recording, the 168 and 128 for 8 track recording, and

the 164 for 4 track recording) were designed for the U.S. market. Our System 8 consoles are also equally at home in sound reinforcement environments.

We surveyed dealers, reps and end-users to find what features they would like to see in these mixers. The results were compiled and incorporated into these two new designs. This design method enabled us to have a mixer in our line capable of 16 track recording with many of the features of much larger, more expensive boards.

This same design method will be incorporated into our newest modular mixer, the MOD IV, which will be introduced late this year.

An interesting situation occurred with our Syncon B 24 channel recording console. It was introduced to replace the Syncon A and was considered a more modern design both electronically and in the features offered (yet at a lower cost). However, to our surprise, there was great demand for the technologies incorporated in Syncon A. Syncon A is an all-transistor design with only one integrated circuit used in the board, located in a non-critical circuit, and thus not affecting audio quality. What you hear on Syncon A is the sound of transistors rather than ICs.

One of the main design criteria of our Syncon B consoles was expandability. A customer can start with a simple 8 input, 8 track console, and expand up to a full 44 microphone input channels (more than 88 line inputs) without discarding one piece of Syncon B hardware. This expansion can be performed at any time in as many stages as the customer requires, including automation.

Allen and Heath Brenell maintains a direct relationship between the technologies used and the demand/budget of our customers. Our interests lie in building the best and most reliable equipment possible while working within the budget of our loyal fans and customers.

AMEK

by **Tim Mungovan**

Amek Systems & Controls of Salford, England, has been an audio console builder since 1970 with a broad line of recording mixing desks,



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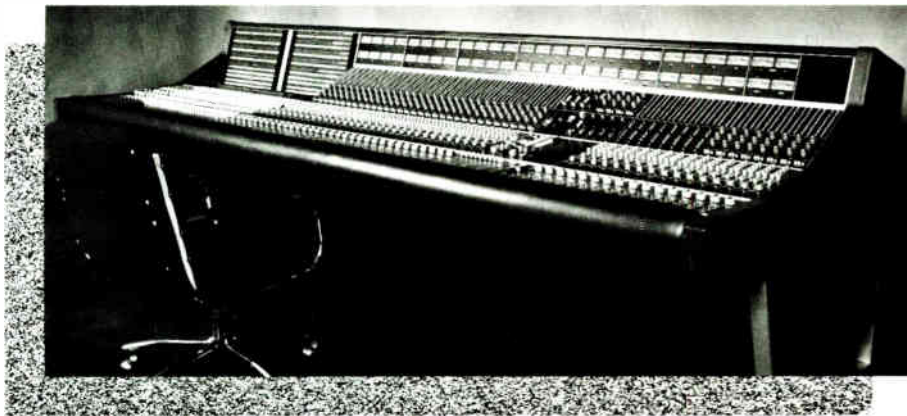
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World Radio History



API/Datatronix Gold Seal Series

ranging from small mixers in the Total Audio Concepts line to the larger Amek M Series line of full-sized mixing consoles.

Amek has concentrated on providing standard chassis metal work to accommodate a variety of applications, through the design of different modules, including standard input/output, parametric EQ, 24x8x8 mixing output modules for cinema work during 35 mm dubbing, sound reinforcement, video dubbing and on-stage foldback desks. With three basic chassis configurations, the M1000, 2500, 3000, and 4000 desks, the amount of inputs is limitless. Usual input configurations are 16, 28, 36, 48, 56, 72 and up, with up to 48x8x8 buss outputs.

Amek quality standards do not allow any ribbon tape or PC board type patch bays. All our consoles are hard-bussed mother board type using multiple point grounding and standard patch bays, which utilize half normalizing. This costs more, but the dependability of Amek products is greatly improved, and the customer reaps the benefits.

All frames are extremely rigid welded steel. Double sided, gold plated edge connectors and PC boards allow precise module alignment and connection to mother boards. Power supplies are over-built using only the finest toroidal transformers and output devices. Most parts are American-made, graded within 5% of specifications, given a typical overall 90 dB signal to noise ratio at 200 Hz and above.

Amek has an active R&D program headed by Graham Langley in the development of digital and multiplexing circuits for a Hybrid Console system. Incorporating the digital control of analog circuits, the digitally controlled analog console currently on the drawing boards would conceivably have: digitally controlled mikes, line, gain, EQ control (filtering), echo send, return gain, and fader settings and changes, along with routing, solo and mute functions all with instant recall and hands-off resetting of all parameters of a

conventional mixing console. This would allow the immediate reconstruction of setup from a previous recording or remix session, thus decreasing setup time for any selection from basic overdubbing through video and 35 mm mixing and dubbing.

API/DATATRONIX

by Saul Walker

At API/Datatronix, we believe the future direction of console technology is based on four major factors: first, state-of-the-art advances; second, the requirements and complaints of console users; third, flexibility; and fourth, good old common sense.

From an extensive survey of console users, we discovered that one common denominator was dissatisfaction with the sound quality and reliability of many of the newer designs. In fact, the survey revealed a growing appreciation for the consistently satisfying performance of the older and simpler consoles of various brands which employed conservatively designed discrete circuits. The users indicated, however, a desire to maintain the benefits of grouping and automation, and expressed a demand for improved performance in keeping with the advances anticipated in both analog and digital recording technology.

The Gold Seal Series is API/Datatronix's response to this demand. Featuring all-discrete circuitry in the main signal paths, the Gold Seal Series is available with dynamic range in excess of 120 dB, headroom of 28 dB at all points and high output clip level of +32 dBm. Newly-designed low noise, minimum feedback transformerless amplifiers operating from high voltage bipolar rails provide better stability, lower transient inter-modulation (TIM), lower noise and more headroom than is possible with currently available integrated circuit designs.

In our continuing insistence upon excellence, API/Datatronix decided to use gold contacts and connectors, and sealed relays throughout the

system (thus, the Gold Seal trademark). While these features can add considerably to the cost of a console, anyone who has blown a mix because of noisy or intermittent contacts knows it's well worth it!

With technology continuing its rapid advancement, API/Datatronix decided it was unwise to limit the system design to the channel strip approach. Instead, we provide a flexible series of smaller modules, each optimized to perform specific functions, and mounted in the most appropriate location for access and visibility. For example, five different interchangeable channel equalizers are available, ranging from parametric to switchable to graphic. An entire module is devoted to undedicated effects sends, and both 24 track and 32 track output assign modules are available. A separate side monitor mix is standard, but in-line monitor is also available. The side monitor is equipped to provide additional line level inputs during mixdown; the in-line monitor is ideal for remote on-location recordings and simultaneous live broadcast feeds.

Recognizing the major role automation will play in the future, we have designed a full-function automation fader, compatible with several currently available programs. An all-discrete circuit, based on the Allison/Valley People 101 gain cell, minimizes VCA coloration. Features include group master modes; solo in place; muting; read, write and update presets, channel trim, and others.

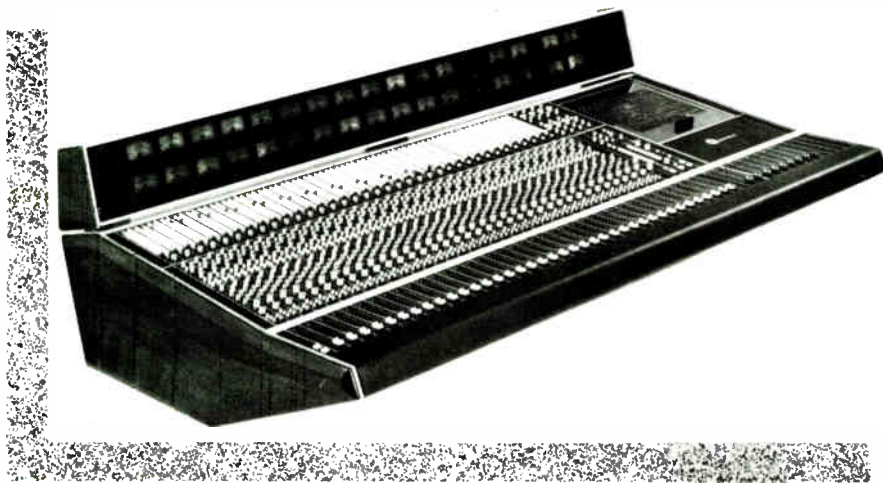
We also can provide the Gold Seal Series with conventional non-automated faders - without sacrificing the advantage of group muting. There are four group mute busses which operate shunt FET "soft switches" in each channel independently of the automation VCAs.

When attempting to predict the future it is important to look to the past. From their first introduction in the early 1970s, API consoles have sustained a common sense reputation and an excellence of quality which has kept even the earliest models still performing to this date. We predict that today's API/Datatronix Gold Seal Series consoles, with the same quality and reliability, coupled with greater flexibility and higher technology, will be turning out quality product for many years to come.

AUDITRONICS

by Larry Lamoray

It has been interesting to observe the progression of audio console design over the past several years. After the wild no-holds-barred proliferation of boards with all the "bells and



Auditroneics 700 Series

whistles" during the mid 1970s, common sense, sound business judgment (no doubt dictated by the recent economic climate), and reasonable operational practices now prevail, and the console designs present today reflect those facts.

At Auditroneics this return to normalcy is not surprising, for we have always manufactured consoles for the seasoned professional, and were never caught up in the mood of the moment. In the 1970s, the Auditroneics 501 Series console was a mainstay of the industry, proven by the sale of hundreds of units and the high resale value still commanded by them. In the 1980s, the Auditroneics 700 Series continues this tradition, providing a quality, cost effective instrument which will weather years of use and abuse.

Sound quality is the foremost consideration of any console design and the 700 Series is equal to any in that respect. Auditroneics engineers have spared no expense nor cut any corners in circuit design. But though sound quality is the first criteria for judgment, the ergonomic and mechanical construction must also be examined. This is where the 700 Series excels. All controls are logically positioned, clearly labeled, and within easy arm's reach of an average size person.

Input functions are divided into three in-line modules, allowing a wide range of flexibility and update possibilities, ease of maintenance, and less requirement for spare parts stocking. The mainframe is extremely strong, constructed of welded tubular steel and heavy aluminum extrusions to withstand even the rigors of mobile use. The motherboard is of 1/8" glass epoxy and structurally supported to prevent the eventual sag so common in many other consoles, and top panels are of anodized aluminum with legends etched into the surface to overcome the other common problem of paint chipping and

silkscreen wear.

Standard features on the 700 Series encompass the functions and options commonly specified by users: transformerless balanced inputs, both mike and line, three band EQs with high and low pass filters on each input, four effects and two foldback send systems, VCA level control with the ability to use either fader for tracking or monitoring, VCA grouping, four effects returns, stereo and dual mono mix outputs, complete control room and studio monitoring facilities, multiple solo points, built-in condenser mike powering, oscillator, input/output multi-channel metering, communications systems, modular patchbay, and proprietary design transformer isolated outputs with transformerless specifications (patent pending).

At a price comparable to other consoles in its class, the Auditroneics 700 Series is a wise investment for the professional recording or production facility and represents Auditroneics continued attention to the current needs of the industry.

HARRISON SYSTEMS

by Brad Harrison

Harrison Systems views the future direction of console technology in terms of increased efficiency in three areas: design, production and utilization. In regard to design efficiency, every step must be taken to eliminate as many design inefficiencies as possible. Harrison has been able to drastically shorten the design cycle of new products by implementing all the latest technology, such as the utilization of a printed circuit board C.A.D. (Computer Assisted Design) system, computer generated metalwork and schematic drawing systems, and the extensive use of "generic" circuit designs which can be shared between two or more product lines.

Efficient production techniques must also utilize the best technology has to offer. To that end, Harrison Systems has radically improved the way in which consoles are manufactured. The Series Four consoles are the first of many products to come which encompass efficient design and production. The elimination of hand-soldered wiring in the frames along with the use of thick-film resistor networks on the printed circuit boards has significantly reduced labor costs while improving performance.

The utilization of a console by the end-user will be the bottom line for design and production. The radical diversity of present and future console applications dictates several highly specialized consoles to satisfy all requirements. End-users will no longer make due with consoles designed for something other than their own application.

The digital console, while still a part of Harrison Systems' ongoing R&D efforts, will still be a few years away. Many advancements in digital integrated-circuit technology will be necessary in order to generate a console design that will be economical to build and maintain. With the sonic performance of today's best analog consoles being above that of today's digital tape machines, economics will dictate the availability of a viable digital console.

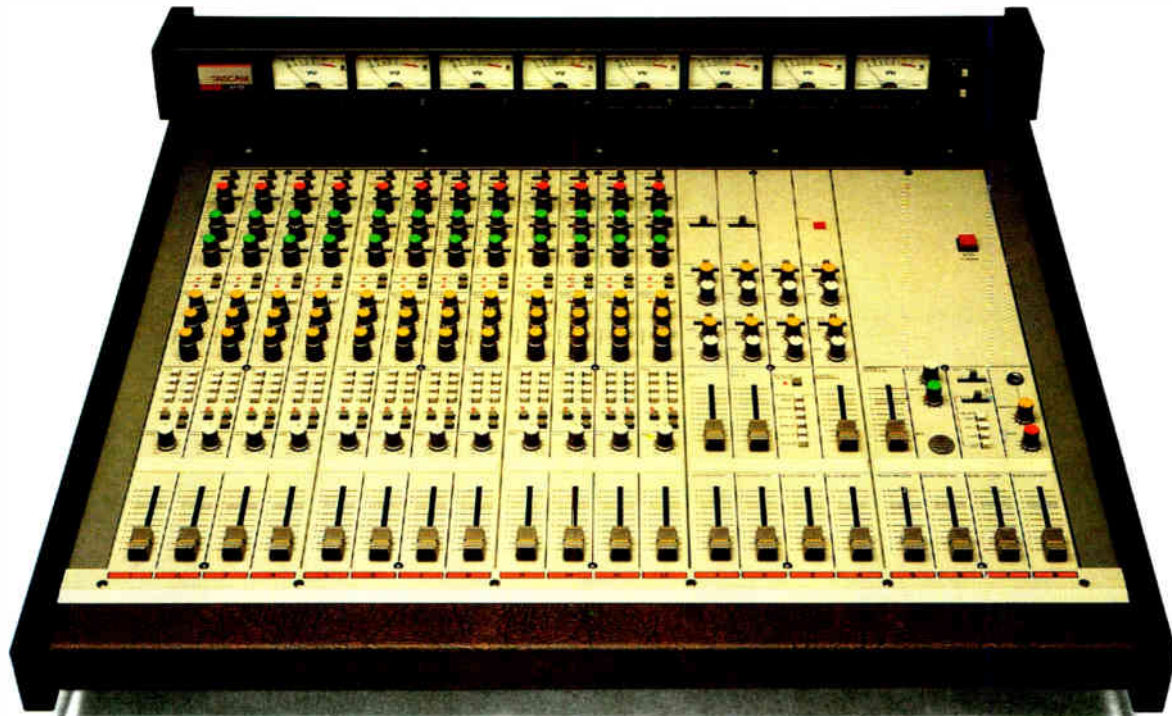
INTERNATIONAL CONSOLES CORPORATION (ICC)

by Steve Moore

Our consoles are designed by Lance W. Parker, who has been designing consoles for more than twelve years. To understand the ICC design philosophy, one needs to understand that Mr. Parker is a recording engineer and record producer. In the beginning he designed consoles for his own use, as he felt existing consoles were far too expensive and lacked the simplicity of design which contributes to good sound. It was never his original intention to market these designs. He just wanted a better tool for his own use.

It wasn't long before other engineers in the area began taking notice. These engineers had been using Neve, Harrison, and MCI consoles. Similar recordings were made on these consoles and on Mr. Parker's. When the tapes were compared at the various studios, it was obvious there was a big difference in the sound. In just three years over half of the dozen pro studios in the area purchased and installed Parker consoles.

There are certain ingredients which account for this difference in sound quality. At the top of the list is the fact that Mr. Parker is a very good engi-



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By including direct boxes to accept instrument inputs, phono pre-amps for replaying effects library or reference disks and stereo solo "in place" permitting monitoring of individual channels or whole portions of a mix, you get what you need. High performance functions as standard equipment.

The M-50 is reliable and fast, with extremely flexible signal routing. A valuable asset to the ad agency production room, the small video production/post-production company, the multi-media production facility, and in many other applications.

Because the M-50 includes Solo and PFL, multiple auxiliary mixes, plus balanced and unbalanced inputs and outputs, it is also well suited to final film assembly, small club P.A., and broadcast with clean feeds provided.

TASCAM's extensive design and manufacturing experience in professional recording equipment made it possible to create the M-50. Compact and affordable, this modular 8-track mixer is within the reach of any serious professional.

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neer and he regularly uses his own consoles. Through this constant usage, design nuances are revealed. We at ICC feel this is the only proper way for a designer to evaluate and update a console. The good qualities are retained and the bad qualities are designed out.

This evolutionary process has brought us to our latest model, the ICC Model 9000, priced at \$45,000 for 24 channels with the following features in every channel: noise gates and limiters, effects returns, new VCAs with less noise and distortion than conventional faders, and two preamps (one optimized for low gain, one for high gain). The money saved in outboard gear alone (noise reduction and limiters) is substantial.

One of the secrets in providing all of this at a low cost is our bussing circuit. This one simple change in design has eliminated the patch bay, hundreds of switches, reams of wires, and the need for separate effects return modules.

ICC has installed a world class studio in Sun Valley, Idaho. We're convinced we have a cost efficient console designed for the economic realities of the '80s, and our Sun Valley facility stands ready to demonstrate this can be accomplished without sacrificing quality or versatility.

NEOTEK by Craig Connally

Neotek is known for technological innovation and a continuing search for maximum sonic performance. Over the past ten years, our consoles were the first to offer such advances as transformerless microphone preamplifiers, state variable (quasi-parametric) equalizers, and radio frequency signal handling techniques. As these techniques become increasingly accepted by the industry it is appropriate to consider the future of console technology.

In the area of circuit engineering, designers will begin to exhaust the potential of circuits based on general purpose operational amplifiers and will extend the performance of consoles by turning to application-specific circuit topologies at critical stages. This will be true whether the opamps are integrated or discrete because today's monolithic amplifiers are no longer at a disadvantage. The first example of this is the transformerless microphone preamp, but Neotek's research suggests that appreciable gains in audio quality can be realized by using application-specific circuits in combining amps, filters and equalizers, fader buffers, and output drivers. Because of improvements in all

areas of audio technology, sonic improvements in consoles will become increasingly noticeable and necessary.

From the standpoint of systems engineering, the most advanced consoles will become increasingly simple on the outside, at the operator interface, and more complex on the inside, where hardware and clever design makes them easier to use, yet more powerful. The attempt to produce consoles which are all things to all people has resulted in designs with thousands of switches and myriad cryptic symbols to label them, yet which are compromised to the extent that they will not do basic in-place or stereo solos. The misidentification of flexibility with complexity will dissolve as capable engineers zero in on the goal of ergonomic minimalism and optimization of the logical switching systems of consoles. This is the general trend of technology; for example, computers are eschewing typewriter keyboard control for the more efficient joystick, mouse, or light pen and it is doubtful that many engineers will be typing mixes before such progress affects consoles. In the meantime, consoles will become easier to operate because their controls will be differentiated by knob size, height, color, and grouping; controls will be calibrated and designated with easily interpreted nomenclature; and a minimum of LEDs will be used to indicate abnormal conditions. The promises of console automation remain largely unfulfilled, but new console designs will express the realization that user-friendly consoles are the result of creative analog systems design and not of digital afterthought.

As consoles produce better sound and become ever easier to operate, they will also become both more generalized and more specialized. Generalized, as the result of increasing interdisciplinary standardization of operating levels, interface methods, and terminology. Specialized, as it is unrealistic to expect a console that is simple and efficient to operate in, say, a live theater environment to be equally adroit when used for television post production.

In order to achieve maximum efficiency and user friendliness, consoles of the future will show a variety of application oriented forms. It is for these reasons Neotek offers unique consoles designed specifically for multi-track recording, four and eight track recording, sound reinforcement, broadcast production, theater effects, and TV/film post production.

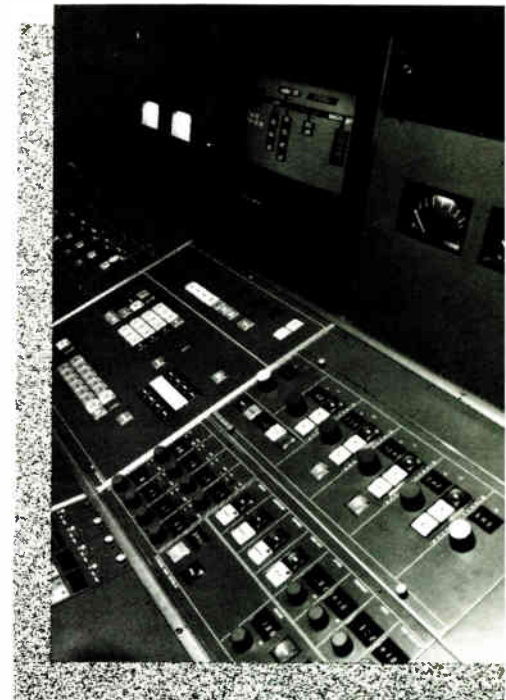
NEVE

by Anthony H. Langley

Unique, advanced, exciting,

and totally new are superlatives often used to describe audio consoles. With the launch of the digital disk, digital audio is a reality and has far-reaching consequences. Old superlatives now take on a new meaning, and a totally fresh approach is needed.

Neve has designed and manufactures the world's first fully digital audio console. All signal paths including equalization, filtering, effects, limiting and compression are handled digitally. Direct connection exists for digital tape recorders and similar devices with analog ports for existing



Neve's digital audio console

non-digital equipment.

Present large analog multi-track consoles have around 4,000 controls. Operation is often awkward and dimensionally can be a mechanical and acoustical nightmare. The Neve DSP is equipped with just two sets of "channel" controls. Access to any control on any channel is immediately obtained by touching an "access" button on the relevant fader. All the relevant controls are near the operator's hand: control knobs operate shaft encoders, with a digital or analog readout for visual indication, together with a full color video display for status and automation control.

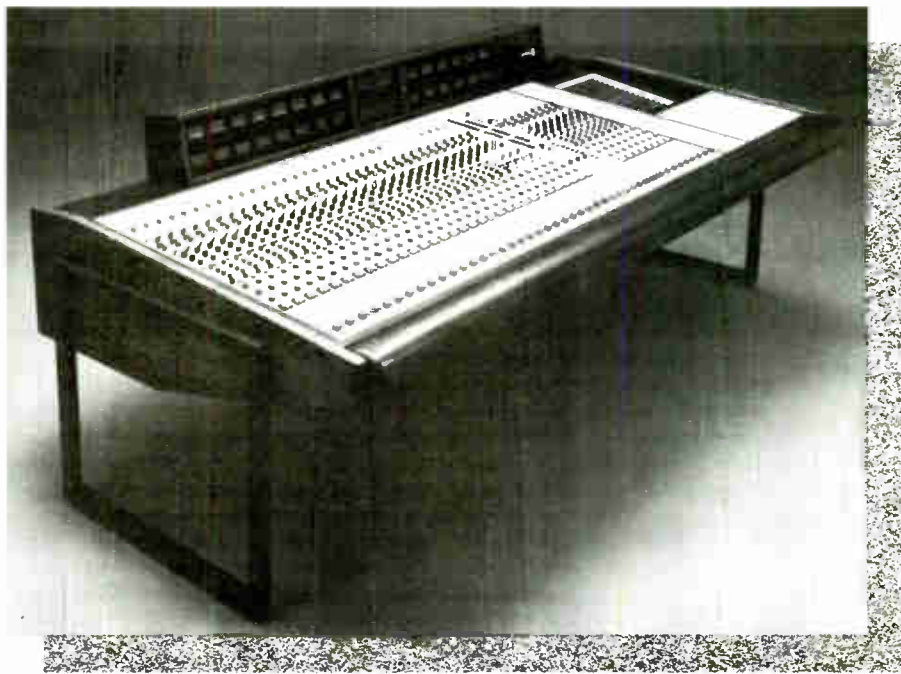
The most critical controls on any console are the faders. Here it is vital that the functions of control and display are intimately combined. A special version of the highly successful NECAM fader with its motor drive provides an ideal integration of display and control with its instinctive updating for

any setting recalled from memory.

Unlike its analog counterpart, the inclusion of total storage and reset of all controls is relatively straightforward. The Neve DSP console includes full memory of all controls including equalizers, limiters, echo send and signal routing, giving instant "snapshot" storage of settings, together with full mixdown automation for mixdown and post-production work.

The DSP has the potential for many new kinds of facilities, such as continuously variable real-time delay on every channel, giving improved auditory perspective and phase coherence in a multi-microphone mix. The ability for software tailored equalization to be incorporated to suit a particular engineer is also possible.

Finally, supply rail voltages are no longer a fundamental limiting factor on signal handling capacity. Extra signal headroom is provided simply by using larger numbers in the processing. With a dynamic range of 120 dB and an input headroom of 34 dB, transient signal handling is immaculate. Using fiber optic transmission paths, there is no crosstalk and no loss of high-frequency response on long circuits. In short, the Neve DSP operates on the



Quad Eight Coronado

boundaries of known physical laws and sets the "new" standard for Neve.

At this time, the digital sound mixing desk is most cost-effective in applications where a sophisticated custom analog system would previously have

been installed. The totally unique features give the sound engineer creative opportunities never before experienced. Notwithstanding the advantages of digital mixing, it will be some years before the analog mixing desk is

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World Radio History

completely outmoded. Indeed, the technology which has made possible the digital mixer has also facilitated the design of high performance analog audio desks. Neve also manufactures consoles such as our 8128 which fulfills many needs. However, there is an inevitability about digital sound recording. Over the next decade the techniques Neve has discovered will be exploited and expanded to a degree that will make digital audio systems as commonplace as their analog counterparts are today.

QUAD/EIGHT

by Kenneth C. Davis

Quad/Eight Electronics has two top of the line consoles in two different categories. For recording, our premium console is the Coronado, with Compumix III™ Disk Automation. The Coronado is a 24 or 32 track console (monitoring capability to 36 tracks) with 40 inputs. This console exemplifies our philosophy of giving the customer the highest quality at an affordable price.

For quality and performance, the Coronado uses discrete circuitry for its ability to deliver the output level (± 28 volts rails), slew rate, and phase response required for the maximum overall sound quality, which is the ultimate test. We still believe that less is better when it comes to the number of components in the signal path.

For small formats, we offer the 248 console system. Here the goals were different. Quality, of course, was primary; but size and the ability of the console modules to be arranged in many different ways for different user requirements was the design goal. This was achieved through a transformerless IC circuit design and an intricate system interconnect design using straps and multiple signal flows on the module and motherboards to allow extreme customization of a standard manufactured product. Again, technology was used as the slave of the design, not its master.

Quad/Eight has been at the forefront of digital and digital/audio technology for the past 10 years, and we are also pursuing other technologies which should increase the ease of operation, expand capabilities, give higher performance, and reduce price. However, we do not plan to include these in a console until they become a reality and offer a benefit to the customer.

SOLID STATE LOGIC

by Doug Dickey

The awareness of quality audio's impact on accompanying images is at an all time high. The prolifer-

ation of stereo motion picture soundtracks and the advent of consumer video media with advanced audio capabilities has fueled the need for more sophisticated audio in telecasting and other forms of video programming.

The rapid pace of development in communications and entertainment technology has created special problems for production, operations and technical management. Equipment planning to meet the new audio-for-video challenge is particularly critical and difficult.

Conventional broadcast consoles lack the signal processing capabilities required for complex post-production. Generally, multi-track music consoles allow greater manipulation of audio, but fail to provide many of the operational features required for efficient broadcast operations.

While traditional film sound techniques offer considerable creative flexibility, it is time consuming and inapplicable to live situations. Moreover, it employs largely mechanical equipment with multiple operators, and is not particularly effective in serving the audio post requirements of ENG and elaborate electronic field production.

The Solid State Logic SL6000E Stereo Video System provides comprehensive and practical solutions to these problems. It accommodates the diverse daily routines of the competitive local broadcaster, the network production center and the independent post-production house with maximum ease and reliability. More importantly, the SL 6000E Series is designed to adapt to future needs as the nature of your requirements change.

Our Stereo Video System is a complete audio-for-video control room command center. Combining an advanced in-line formula with centralized master facilities, it enables a single operator to easily control the most comprehensive and useful array of signal processing and routing capabilities ever offered in a single unit.

In addition to mono and stereo outputs for live teleproduction, the SL 6000E Series console provides 24 group outputs for multi-track recording, and a unique 6 group post-production mixing matrix. This matrix provides three discrete stereo mixing groups for music, effects and dialog tracks, which may be simultaneously or subsequently reduced to mono and stereo mixes for layback or transmission. Standard mainframes accept up to 24 or 32 input/output modules, providing as many as 32 microphone and 64 line inputs, plus 4 stereo echo and effects returns.

Unlike "add-on" black boxes which provide limited mixing automa-

tion, Solid State Logic Computers are thoroughly integrated with the control console, and are connected to each channel and group fader and cut button, as well as the console master fader. The computer enables an unlimited number of mixes to be stored on floppy disk, capturing the engineer's subtlest inflections, limited only by tolerances of the mechanical fader elements.

The command keyboard built into the console includes transport remotes and dedicated command keys which control the master machine, synchronizer, and slaved ATRs, VTRs or a film chain. An alphanumeric keyboard enables offsets, cues and locate instructions to be entered in timecode values or any foot/frames standard. Alternatively, locations may be given identifying numbers or names. The computer's parallel handling of list management, locate, record and mix functions provides simple routines for music and effects spotting, dialogue splitting, rollbacks, pickups and first generation laybacks.

The SL6000E Series control console is uniquely versatile in its own right. When coupled with its complementary Solid State Logic Studio Computers, the entire Stereo Video System becomes an instrument of unrivalled creative capabilities.

SOUND WORKSHOP

by Michael Tapes

It will not come as a surprise to anyone that the future of recording console technology may very well lie in the digital domain. It is clear that those mighty ones and zeroes have already invaded almost every aspect of our lives, from word processors to a growing portion of the music to which we currently listen.

The above comments speak generally for the future. But that future lies many years ahead of us. More critical to the discussion of future console technology is what lies between now and the impending onslaught of the binary digits . . . what is in store for us in the *immediate* future?

Interestingly, there is not much going on in terms of technically improving the sonic performance to today's consoles. Most major console manufacturers are utilizing similar (if not precisely the same) componentry in their products. This provides the basic common denominator for ultimate console performance criteria. Most of the technical advances we now see result in manufacturing efficiencies. Techniques such as CAD (Computer Aided Design) and thick film resistor SIPs result in lowered product cost and improved perform-

ance. Other "advances" detract from the ultimate performance of the console, but offer attractive cost savings for the manufacturer, which may or may not be passed along to the end user. In general, we can say it is not the technology that is changing as much as the packaging and implementation of the technology.

Since its inception, Sound Workshop has been designing and building consoles that utilize the latest technology, "packaged" in an innovative and cost effective manner. This philosophy has been responsible for our strong success in the recording marketplace. Over the course of the next several years, we will continue to offer the highest performance standards possible in functional, reliable mixing systems that will address the needs of changing console requirements.

Although it will be several years before the digital invasion completely takes over our consoles and transforms the music into an assortment of bytes and nibbles, these digital marvels presently provide precise and repeatable control of our analog consoles. Sound Workshop has led the console automation field with digital control products which can be adapted to con-

soles of other manufacturers as well.

ARMS Automation is now available for retrofit into existing consoles with separate fader areas. (ARMS is also available, factory installed, in the Harrison Series 4 consoles.) DISKMIX, the automation storage/editing system, can adapt to consoles with ARMS, JH-50, or 65K automation. Both ARMS and DISKMIX are examples of Sound Workshop's leadership in the area of console technology, but in truth they are not technological breakthroughs. They are simply thorough and innovative applications of existing technology.

In the far future, we see the development of audio recording products which are totally unlike the hardware representing today's technology. As we approach the future, however, we look to demanding new areas for application of "present" console technology. For example, new video and production techniques/requirements are urging us to adapt and extend our existing technology towards the fulfillment of these creative goals.

SOUNDCRAFT

by Graham Blythe

The most significant advances

in console design in the near future will be in the direction of computer assisted control.

At present, and with very few exceptions, console automation has been restricted to fader and mute control. This situation will certainly change dramatically within the next two years.

Soundcraft already has conventional consoles in its design program which extend computer control to areas such as section switching, auxiliary sends, panoramic controls, and a totally automated console encompassing the entire gamut of control. We expect most other major manufacturers have similar plans in various stages of development. We hope to show the total automation control system at a major exhibition during this year to receive comments on its facilities and ergonomics.

I am of two minds regarding digital console technology. My personal feeling is negative. Digital consoles are no quieter than a well designed analog desk and the phase shift at the top end is quite terrifying. However, if our ears can accept digital tape machines then we should be able to cope with digital consoles.

In all fairness, their great ad-

Production quality.

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Model shown: 740-36

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vantage is the entire console can be completely reconfigured via software to perform any task, providing the hardware has been carefully designed. Soundcraft does not reject the all-digital console, but prefers at this time to devote its engineering resources towards the digital control of analog consoles and furthering the state of the art in analog technology.

STUDER REVOX

by Thomas E. Mintzer

With the developing future for digital recording it is natural to project at some point the "all-digital studio," where signals are at once converted to

digital form at the console during tracking and remain in this domain all the way through overdubs, processing and mixing to a final digital product. The work already done by Studer in redefinition of joint recording standards, as well as existing digital signal processing products indicate we take the future integrated digital studio seriously.

However, the digital console must have a very fast (20 million operations/second or more) processing speed as well as an internal architecture that handles at least 24 bits. Such consoles are really large special purpose computers with a few knobs added to make us all comfortable. Even though examples exist today, practical commercial

development depends to a great extent on the availability and refinement of technology which is not being explored for military and image processing applications. Examples include special function digital processing circuits, to be realized perhaps via VLSI (Very Large Scale Integration) techniques.

Meanwhile, because of the conservative pace of digital standardization, its usage in the marketplace, and the relatively short time between generations of conventional console equipment, Studer sees a continuing need for new analog consoles, although they must be capable of performing comfortably with the best analog *and* digital equipment.

It would seem the recording community is fairly satisfied with the operational aspects of the modern music console as it has evolved. Various "improvements" introduced over the years (such as central panel channel switching and control schemes, video monitor metering, fader substitutes, etc.) have met with limited enthusiasm. However, the performance area is of more interest.

In any interim "hybrid analog/digital" period, a design for analog consoles, to be performance compatible with digital recorders, must be very good indeed. In mixdown mode, for example, multi-track accumulated noise cannot be counted on to disguise console noise.

With the advent of the newer low noise/high slew rate opamps at mass production prices, much of the industry is using the same active devices, and the often heard comment is, "They all use the same chips—so the consoles are all the same inside." But is this true? While it is certainly possible to do basic "gain block" console design from any good opamp book, Studer finds designs in areas like preamps, equalization, grounding technique and "real world" transformer and transformerless interface still require and benefit from the skills of the superior engineer/physicist.

Aside from providing the features needed on any new generation console, along with a versatile physical systems approach, we believe it is necessary to produce important system performance improvements as well.

Another challenge, a more non-technical one, is providing such improvements as well as comprehensive operations without falling prey to the \$300,000 pricing syndrome now crippling the careful studio owner who wishes to update the console. We feel that a modern, compact console with the highest audio quality and elegant but not overblown facilities will have a place both in music recording and general production studios. ■

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VASSAR CLEMENTS

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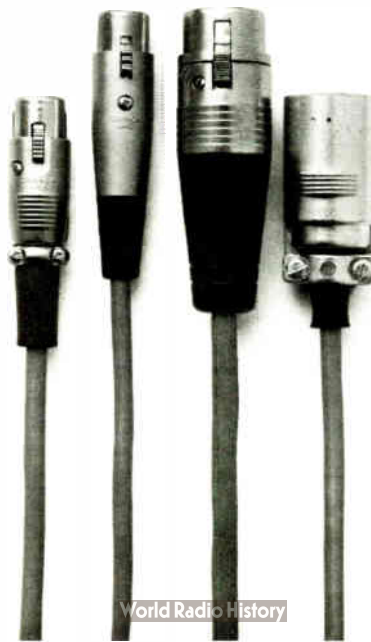


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Audio for Video and Digital Gain Ground

by George Petersen

Despite rumors to the contrary, the Northeast recording scene is alive, healthy, and growing. Checking with studios and retailers, we found a hotbed of activity, especially in the areas of audio production for video and film, and digital audio.

Courtney Spencer from Martin Audio Video explains that audio for video is definitely a growing area. They recently sold 74 Otari MTR-10 recorders to ABC, and Q-Lock synchronizers are also selling well. The Sound Work-

shop Series 30 consoles are another popular item, being acquired by Broadway Video (NYC), Sigma Sound (Philadelphia), Unique Recording (NYC), and Mega Music (NYC).

At Audiotechniques, Matt Brosious reports strong sales of MCI products with JH-24 recorders and consoles going to Duplex Sound (NYC), GT Recording (Long Branch, NJ), and Professional Sound (Boston). Northlake Sound (White Plains, NY) also upgraded with a new JH-636 console.

Peter Enqle, from PRS in Bos-

ton, has seen an upswing in audio sales to broadcasters, and finds a growing number of audio studios buying synchronizers to keep pace with the audio/video market. In addition to the BTX Shadow systems, Otari recorders are

—Page 25



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*Spectrum Recorders in
Lanesborough, MA*

Boogie Hotel

The Concept Continues

Boogie Hotel Studios, which will celebrate its second anniversary next month, has a long and varied history behind it. The 25 room mansion/studio, located in the seaside resort of Port Jefferson, New York, was built in 1851 and now incorporates a restaurant, bar, and hotel with five guest-rooms for their clientele. About 25 years ago, a playhouse theatre was added, and this structure now houses the studio facility.

The studio was originally built by the group Foghat, who also used the adjacent mansion for storing their road equipment. The studio was designed by Don Berman, formerly Foghat's chief engineer and currently one of Boogie Hotel's five owners (along with Steve Bramberg, Jeff Kalawek, Bob Ludwig, and John Rose). When Foghat moved their base of operations to the Florida area, they offered to sell the studio to Don. The "Boogie Hotel" name was adapted from the Foghat album *Boogie Motel*, and the rest is history.

Steve, who is also Boogie Hotel's studio manager, explained the idea to develop a live-in studio was based on his experiences at Longview Farm, and the successful Caribou Ranch concept. The first step was the total renovation of the mansion, top to bottom, adapting it to fit the needs of the first-class clientele they were hoping to attract.

However, it requires more than plush surroundings to keep a studio booked throughout the year. Numerous other factors account for Boogie Hotel's success: one is the high caliber of studio gear which includes Studer and Ampex 24 track recorders with Q-Lock synchronizers for 48 track and video interlocking, a Neve 8128 48 in x 32 out console, and almost every conceivable type of outboard gear and microphones. Other factors are Boogie Hotel's proximity and accessibility to the New York area; the relaxed Port Jefferson atmosphere; and the studio's excellent engineering staff.

One of the constant problems facing Boogie Hotel is their popularity with artists and producers alike. Usually booked solid, they often have to turn away major clients. Due to this dilemma, another studio is being built. The new 48 track room will also feature complete video capability and should be on-line this summer.



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Editel Sound Mix Room Debuts

Editel New York, a major video service, unveiled its premier post-production sound mixing facility in December of 1982. The facility features a combination of acoustical performance, state-of-the-art technology and elegance of design. The project was awarded to Vin Gizzi, noted New York City audio consultant. Assuming more than the duties of Project Director, Gizzi was responsible for the entire project from concept and design to construction and installation. "It was a tremendous challenge," he says. "Because we were breaking new ground technologically, we had to be innovative."

The success of the Editel room is largely due to the architectural design team Gizzi assembled, which included acoustical consultant Carl Yanchar of Lakeside Associates and Ralph Potente of Editel's staff, who was also responsible for the decor.

The room sits on a floating floor and utilizes double wall construction throughout for acoustical isolation from the rest of the Editel facility. Room response is within 3 dB over the audible range and stereo imaging is excellent

from all seating positions. Good lines of sight to the video monitor are provided for more than a dozen people in a plush and comfortable interior. The air conditioning system was designed to operate at very low velocity for minimum ambient noise, and also supplies separate cooling for equipment.

An SSL 6000 series console, which was designed for the Editel project, is fitted with 32 input/output modules (expandable to 48) and 6 mix bus-

ses. SSL's Events Controller is used in conjunction with automated dynamic mixing. Studer tape machines include 24/16 track, and 8/4 track A800s and 2 track A80. 35/16 mm mag playback is part of the system, as well as stereo audio cart machines used primarily for sound effects and sweetening. The mix room can interface to any of Editel's 27 1" VTRs or 2" quad machines. Video in session is supplied by a Sony BVU 800 with high speed search.



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—From page 22, UPDATE

selling well, with MTR-90 24 track machines going to Long View Farm (North Brookfield, MA), Soundtrack (Boston, MA), and the WGBH audio truck with two MTR-90s. PRS also offers Lexicon 224-X Digital Reverb rentals.

At Neve, Barry Roche reports strong sales to both audio and video facilities, with consoles going to Atlantic Studios (NYC), Boogie Hotel (Port Jefferson, NY) and Soundworks (NYC), and Series 51 video production consoles to Cine-Mix, Reeves, Mix Place, and HBO, all of New York.

Gene Perry, from Harvey Pro Audio has noticed a trend toward studio upgrading: "Most of our customers in the Northeast have been upgrading from smaller situations to 24 tracks. The Soundcraft consoles and tape machines are hot right now and are selling very well. They're a product of the times—cost effective, yet not less than you'd expect them to be, or want them to be." He added audio for video is a growing area, and they introduced their own audio/video editing system at the NAB convention last month. The new system synchronizes up to twelve transports and puts audio under video-type control.

Throughout the Northeast, studio upgrading has been steady all year. Eight track studios moving up to 16 tracks include: Midnight Modulation (Saugerties, NY), Plum Studio (Haverhill, MA), and Outlook Recording (Bethel, ME). Studios making the leap to 24 tracks include Cannings and Battery Sound (both of NYC), Sound Lab Studios in Brooklyn, and Tiki Recording Studios (Glen Cove, Long Island).

New studio openings, while not at an all-time high, continued nonetheless, and included the Leonardo Recording Center (Chester, PA), Nimbus Nine (NYC), Funky Records (Rochester, NY), Bear Tracks (Rockland County, NY), and the Center for the Media Arts' studio, which opened last month. Under the direction of Harry Hirsch, the Center for Audio and Recording Arts is now in full swing, with an MCI JH-636 32 track console and an Otari MTR-90 recorder. Hirsch, a well known studio owner and designer, is building a complete audio arts school program at the center.

Blank Tapes Recording Studios began 7 years ago as a demo studio and now has three 24 track rooms with plans for a fourth. Now with New York City's first Diskmix automated storage system and automated MCI JH-542 console, they offer disk based automation with multiple mix storage and off-line editing capability.

Sigma Sound's studio 5 (NYC) has been upgraded for music scoring

and video post production with the addition of an SSL-6000E console, Studer A-800 Mk III recorder and an Audio Kinetics Q-Lock.

After only two years, business at Spectrum Recorders (Lanesborough, MA) is growing nicely, according to studio manager Peter Seplow. They recently added a B.A.E. LP 140 plate reverb, and are in the process of doubling their studio size. Meanwhile, in Boston, at Syncro Sound Gene Amoroso (formerly of Arista Records) has been hired as studio manager, and Steve Berkowitz became the studio director.

Video and motion picture work has kept Mastersound (Long Island, NY) busier than ever, and they recently added a new Ampex ATR-124 recorder, giving them 48 track capability. The machine was first used by the rock group Americade, who used it on their debut album.

Regent Sound has moved to the former Soundmixers location at 1619 Broadway, NYC. Owner Bob Liffin explained the new facility has twice the square footage, and will offer complete production for the audio/video/music industry.

A key indicator of the recording health of an area is determined by checking with mastering facilities. Jill Dix of Masterdisk reports, "We're busier now than we have ever been. . . there also seems to be a trend toward independent production outside the major labels." She added that digital recording and disk mastering has greatly increased over the past year. At Trutone Records in Haworth, NJ, Carl Rowatti noted business has been steadily increasing and they have remodeled their Neumann mastering room.

Business has been good at IAN Duplicating in Andover, MA, requiring the purchase of two AVA 2001 automated cassette loaders and another full color offset press for printing cassette insert cards.

Audioworks (NYC) has become Shelton Leigh Palmer, a full service music production company. Described by its owner as "a creative playground," they currently have about 35 commercial spots out, including Pepsi, Listerine, Scott towels, and the soundtrack for XTRO, a New Line Cinema horror feature. Their main system is based on the New England Digital Synclavier II, run in tandem with other computers (Digital Equipment Corp.) via the "Palmer Soft" ware system which interfaces all the studio's analog and digital synthesizers. From that point, sounds are recorded onto 4 or 8 track machines with time code, or directly onto stripe coat.

The digital forefront remains a vital area of interest. Due to an increase

in digital projects, Frankford/Wayne Mastering Labs purchased a Sony PCM 1600 recorder last year, and through an arrangement with Scharff Communications, the unit is now available for rent. Now in its second year, the Scharff mobile truck has digitally recorded artists ranging from Stevie Wonder to Leonard Bernstein. Many studios have been using the Sony PCM-F1 digital processors, and C & C Studios (Glassboro, NJ) has installed a new suite with PCM-F1 editing capability.

Soundworks' (NYC) digital recorders were booked solid through much of the year, and Donald Fagen's *The Nightfly* (recorded at Soundworks last summer) is a stunning example of their digital work. A & R Studios (NYC) was the locale for the Glenn Miller Orchestra's *In the Digital Mood*, for release on GRP records. Recorded on a 3M digital multi-track by GRP heads Larry Rosen and Dave Grusin, the disk will be one of the first CD's released in the U.S.

A growing number of studios have found digital two track machines to be a cost effective method of entering the digital market, and Mitsubishi X-80 recorders were recently acquired by ERAS Recording Studio and Secret Sound Studios, both of New York City.

Digital multi-track rentals are also popular and Digital by Dickinson have expanded their business to include two 3M 32 track recorders, and a JVC digital editing system with a JVC digital two track. Frank Dickinson, the company's owner, plans to have his new digital recording studio on line by May 1, 1983. The facility will feature a Trident TSM-80 console capable of handling twin 32 track digital sessions. ■

Funky Records 48 Track Recording Comes to Rochester

Funky Records, owned and operated by recording artist Boyd McCoy, is the parent company of a complete musical organization. Located in Rochester, New York, Boyd's firm includes an artist management agency, a record production company, a record company, and an advertising agency.

January 1983 marked the opening of Funky Records Recording Studio, the world's first entirely lead-lined recording facility. Boyd personally supervised every detail of the studio's construction phase, which lasted two years.

The studio has five separate rooms, one of which opens to enlarge the main room. The walls between each room vary from 1½ - 2 feet thick, with 7 layers of building material and two dead spaces within each wall. Each



A.C.E.S. ML48'48 Console at Funky Records

door within the studio is constructed from a 2" solid core oak door coated with foam padding, acoustical lead, $\frac{5}{8}$ " plywood and finished off in carpeting on both sides.

Windows between studio rooms consist of three separate pieces of glass ($\frac{1}{8}$ ", $\frac{1}{4}$ ", and $\frac{1}{2}$ " with dead spaces between them. The stops around the glass are treated with lead, foam padding, and silicone caulking to reduce sound leakage. The floor in the studio area consists of nine applications of building material: two sub floors, the original floor, rubber padding, acoustical lead, rubber padding again, $\frac{5}{8}$ " plywood, 1" super foam padding, and carpeting. The thickness of the complete floor with carpeting approaches seven inches in the studio area.

Installation for the sound wiring of the studio was custom-designed by Boyd using Belden wiring, Switchcraft connectors and ACE plates. There is no sound wiring in the walls. All

sound wiring (mike inputs, line inputs, headphone lines) is in the floors, which eliminates running long cords across the studio floor. From any spot in the studio, you never need more than a five foot cord to reach an input.

After lengthy consultation, Boyd acquired the first 48 track console to be installed in a Western New York Studio, the A.C.E.S. ML48'48. This in-line console features 5 point equalization, input LED PPMs, 100 mm cond. plastic faders, and a built-in patchbay. Complementing this console are two A.C.E.S. TR24 24 track 2" tape recorders (synchronized via an Omni-Q synchronizer allowing full 48 track recording), an A.C.E.S. TR2 2 track $\frac{1}{2}$ " mix-down machine, and Altec, JBL, Electro-Voice and Auratone monitors.

As for the future, Funky Records' eventual plans include console automation, the construction of video facilities, and the addition of a second 24 track studio. ■

NORTHEAST SESSIONS

At *Unique Recording Studios* (NYC), *New Order* recording with producer *Arthur Baker*, engineered by *Frank Heller*. *Jerry Marotta* (Peter Gabriel Band) co-producing project for artist/producer *Timmy Cappello*. . . . *Ashford & Simpson* recently laid down tracks for a new project at Manhattan's *Penny Lane Studios*. The R&B duo has recorded frequently at the studio since its opening in 1979. . . . Activity at *Soundmixers* (NYC) includes *Paul Simon's* 32 track digital album, *Art Farmer* doing an LP for Concord Jazz with engineer *Ed Trabanco* and Japanese producer *Kiyoshi Itoh* recording two albums for *Hank Jones* and *Nancy Wilson* direct to digital; *Jim McCurdy* engineering. . . . At *Secret Sound Studio* (NYC), *Person To Person* is laying down tracks for Blue Sky Records. *David Hale* is producing, *Scott Noll* engineering and *Warren Bruleigh* assisting. . . . *Suzanne Ciani*, of *Ciani/Musica* (NYC) was recently featured in "Computers: Expressway to Tomorrow," an elaborate multi-media program produced by *Rick Trow Productions*, a Pennsylvania-based company. . . . At *Onomatopoeia* (NYC), activity includes soundtrack production for a major series of children's programs called "Braingames" that will be telecast on Home Box Office (HBO), numerous commercials and corporate video presentations. . . . At *Trod Nossel* in Wallingford, CT, *The Music Project* remixed one song for a video project. *Dave Watson* is continuing his work on two originals. *Dave Plainer* and friends recorded two songs. All sessions engineered by *Richard Robinson* or *Douglas Snyder*. . . . At *Normandy Sound*, Warren, RI, Journey drummer *Steve Smith* has begun work on a jazz/fusion LP with players from his high school days. . . . At *Nickel Recording*, Hartford, CT, projects include *Carol Hahn's* second album, *The Heart-*

beats and *Matt Townsend*, all produced by *Jack Stang*. . . . Recently released projects from *EARS* (East Orange, NJ) include *Indeep's* "A DJ Saved My Life Tonight," and *WDHA's* "N.J. Rock" LP featuring tracks from *The Numbers* and *Bombay*. . . . *Habits*, a new progressive rock band, is currently working in Philadelphia's *Starr Recording Studios* with producer *Joe McSorley* readying their first LP for European release. . . . At *Red Ledge Recording* (Ambler, PA), *Steve Doughty* producing an LP for Philadelphia new wavers *Brave New World* in association with the band. Also in the studio, London based "metal" band *Horsepower*, *Mike Kennedy* producing, *Doughty* and *Denny Law* engineering. . . . At *Greene Street Recording* (NYC), *Al Corley*, ex of TV's "Dynasty," laying down tracks for a demo with *Peter Wood* producing and *Carly Simon* dropping in to help out with background vocals and some production. . . . *GBH Production's* Unit 4, a Boston-based mobile unit recorded the *B.B. King Orchestra* in performance at Tufts University. . . . Recent sessions at *North Lake Sound*, North White Plains, NY, include the *South Street Seaport Venture*, a Translux multimedia experience, produced by *Rusty Russell*, engineered by *Thom Foley*, with *Chris Cassone* assisting. . . . At *Sheffield Recordings*, Phoenix, MD, *Shor Patrol* is laying down new tracks for an EP, *Bob Ezrin* producing. *The Softones* start work for a new album, *Melvin Miles* producing, *Victor Giodano* engineering. . . . At *Studio 4 Recording*, Philadelphia, PA, *Meco* is finishing tracks, with himself and *Lance Quinn* producing. *Bobby Eli* has completed mixing *Venus* for CBS Records; *Obie* engineering all tracks. . . . Recent activity at *Electric Lady Studios* (NYC) includes *Kid Creole* and *the Coconut*s, produced by *August Darnell*, engineered by *Mike Frondelli*, *Eddie Garcia* assisting. . . . In Farmingdale, NY, at *SoundScape Recording Studio*, drummer *Tim Biery* is cutting tracks for his upcoming solo album. Handling production and engineering is

Bob Lessick. . . . Recent guests at the *Boogie Hotel*, Port Jefferson, NY, include *Albert Bouchard*, ex of Blue Oyster Cult, currently recording his new release for CBS "Immaginos." Co-produced by *Sandy Pearlman*. *Paul Mandl* engineering, assisted by *Jim Sparling*. . . . In Portsmouth, NH, at *Fishtraks Recording Studio*, *Orben Torres* from New York City and his band *IO* in for a demo, and former Fleet Street Shuffle member *Doug Bennett* recording a new song with guitarist Kent Allyn and Portsmouth's legendary Dr. Boom Boom on drums. . . . At *Evergreen Recording Studios*, Pittsburgh, PA, rock group *Buster* is completing its first album for Direction G.A., *George W. Annesley* producing, *Harry Coleman* and *Michael J. Hurzon* engineering. . . . *221 Productions* recently turned to the production and editorial facilities at *Unitel Video* (NYC) to create a series of TV spots for Sterling Optical, produced and directed by *Alan Shevlo*. . . . At *Mountain Sound Studio*, Stroudsburg, PA, producer *Bill Goodwin* and engineer *Chris Fichera* are mixing down *David Frishberg's* Songbook Vol. No. II. . . . At *Gramavision Studios* (NYC), *Pheeroan akLaff* and producer *Taj Mahal* mixing Pheeroan's latest LP for release on Gramavision Records. . . . At *RBY Recording Studio*, Southbury, CT, *Sonny Costanza* and *Al Gentile* have both been in with their groups and have their albums in the pressing plant now. *Jack Jones* and *Evan Jones* engineered all sessions. . . . Recent activities at *Sigma Sound Studios* (NYC) include mixing sessions of Elektra recording artists *Queen* and the *Greg Kihn Band* with *John Luongo* producing, *Jay Mark* engineering, *Linda Randazzo* and *Glenn Rosenstein* assisting. . . . Activity at *Kajem Recording*, Gladwyne, PA, includes tracks for *Robin Eaton's* forthcoming album, engineered by *David Lichtenstein* and assisted by *Joe Alexander*, and Delaware-based band *Jack of Diamonds* recording their EP, produced by *Steve Burch*, engineered by *Mitch Goldfarb*.

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ColorSounds is a unique combination of music and color that advances the reading capabilities of children.

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artists receiving the honor.

For Al Jarreau, *Breakin' Away* was the album, Dawn-breaker and Garden Rake were the recording studios and the kids of ColorSounds were the winners.

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Studio Location Index **NORTHEAST**

No. of Tracks	Page	No. of Tracks	Page
CONNECTICUT			
BLOOMFIELD			
24 Reel Dreams	57	24 Professional Sound, Film & Video	55
DARIEN			
16 Jimmy Kronides Video & Audio Recording Studio	38	24 Synco Sound Studios	59
E. HARTFORD			
24 Gallery Recording Studios	49	BOXFORD	
E. HAVEN			
24 Presence Studios	55	16 Fishbrook Music	36
HARTFORD			
16 Nickel Recording	39	BURLINGTON	
NORWALK			
16 Scovill Productions	40	24 Sound Design Recording Studio	58
ROCKVILLE			
16 Amphion Enterprises	35	CARLISLE	
SOUTH GLASTONBURY			
24 Nineteen Recording Studio	54	24 Blue Jay Recording	44
SOUTHBURY			
16 RBY Recording/Video	39	COHASSETT	
24 Mobile Recorders Ltd	52	16 Tik Tinory Productions	40
STAMFORD			
24 Carriage House Studios	46	CONCORD	
16 P&P Studios	39	24 Starfleet Blair	59
8 Stillwater Sound Studio	33	FRAMINGHAM	
24 F. Weinburg's Worldwide Audio-Video Enterprises	60	8 Studio N	33
UNCASVILLE			
16 New London County Recorders	39	HAVERHILL	
WALLINGFORD			
16 Trod Nossel	41	16 Plum Studio	39
W. HARTFORD			
8 Rainwater Recording	32	HUDSON	
WESTON			
24 Don Elliott Productions	47	24 Music Designers	52
DELAWARE			
DOVER			
24 Skylabs	58	24 Dimension Sound Studios	47
MAINE			
BETHEL			
16 The Outlook	39	KINGSTON	
PORTLAND			
8 Studio ?	33	16 Silver Lake Recording	40
ROCKLAND			
4 The Little Studio	31	LANESBOROUGH	
SOUTH BLUE HILL			
24 Newworld Recording Studio	54	24 Spectrum Recorders	59
MARYLAND			
BALTIMORE			
8 GRC Studios	31	MALDEN	
8 Peabody Recording Studios	32	8 Oak Grove Recording Studio	32
KENSINGTON			
24 Omega Recording Studios	55	METHEUN	
PORTLAND			
16 Studio Dual	40	24 Eastern Sound & Video Studios	47
SECRETARY			
16 Birch Recording Studio	45	NEWTON	
SILVER SPRING			
16 DB Sound Studios	36	24 Mixing Lab	52
16 Track Recorders	41	NO. BROOKFIELD	
SILVER SPRINGS PYRAMID			
24 Mickey Rat Research	55	24 Long View Farm	51
MASSACHUSETTS			
ALLSTON			
8 Radiobeat	32	PHOENIX	
ANDOVER			
8 Ian Recording & Duplicating Service	31	24 Sheffield Recording Ltd	58
BOSTON			
24 Century III Recording Studio	46	REVERE	
16 Downtown Recorders	36	8 Euphoria Sound Studio	30
24 Le Studio	50	24 Fleetwood Recording Studios	49
NEW HAMPSHIRE			
AUBURN			
8 North Country Sounds	32	SOMERVILLE	
EPPING			
4 Advertences	30	8 SMAP Sound	32
MANCHESTER			
24 Kevin Tracey Studios	60	WATERTOWN	
NEW BOSTON			
8 Dark Star	30	16 Baker Street Studios	35
PORTSMOUTH			
16 Fishtaks Recording Studio	38	16 Sound Techniques	40
ROCHESTER			
8 Whitehall Studio	33	WAYLAND	
NEW JERSEY			
BLOOMFIELD			
16 All Star Sound Studio	35	8 Studio 44	33
24 Digital by Dickinson	47	NEW HAMPSHIRE	
E. ORANGE			
24 Eastern Artists Recording Studio	47	AUBURN	
GLASSBORO			
16 C&C Studios	36	8 North Country Sounds	32
HALEDON			
24 Broccoli Babe Recording Studio	44	EPPING	
KEYPORT			
16 House of the Rising Sun	38	4 Advertences	30
MANHAWKIN			
16 Park South II	39	MANCHESTER	
NEWARK			
16 Studio 198	40	24 Kevin Tracey Studios	60

No. of Tracks	Page	No. of Tracks	Page	No. of Tracks	Page	No. of Tracks	Page
PLEASANTVILLE		GLEN COVE		24 Regent Sound Studios	57	MUNHALL	
16 Drifting Star Recording Studio	36	24 Tiki Recording Studios	60	24 Right Track Recording	57	8 Micro-Mix	31
RIDGEWOOD		GREAT NECK		24 Rosebud Recording	57	NORTHUMBERLAND	
8 Studio X	33	16 Second Story Sound	40	16 Ross-Gafney	40	24 Susquehanna Sound	59
ROSELLE		GREENWICH VILLAGE		16 Roxy Recorders	40	PHILADELPHIA	
16 Homegrown Studios	38	16 Institute of Audio Research	38	24 RPM Sound Studios	57	24 Alpha Int'l Recording Studios	42
UPPER MONTCLAIR		HILTON		24 Scharff Communication	58	8 Cherry Sound Studio	30
8 Starlust Recording Studio	33	16 Audio Image	35	24 Howard Schwartz Recording	58	16 Chestnut Sound	36
VINELAND		JACKSON HTS		16 Sear Sound	40	16 Future Gold Sound Studios	38
4 Ocasonic Recording	32	4 Collegium Sound	30	24 Secret Sound Studio	58	24 Sigma Sound Studios	58
WAYNE		KENMORE		16 Servisound	40	24 Starr Recording	59
16 The Barge Sound Studio	35	24 Select Sound	58	24 Skyline Studios	58	24 Virtue Recording & Disc Mastering	60
W. ORANGE		LAKE RONKONKOMA		24 Sorcerer Sound	58	PITTSBURGH	
24 House of Music	50	16 Paris Recording	39	24 Soundworks	59	16 Aircraft Studios	35
		LONG ISLAND CITY		24 Teletronics	60	24 Audio Innovators	42
		24 National Recording Studios	52	24 39th St. Music Productions	60	24 Queen Village Recording Studios	55
		24 Power Play Studios	55	24 Unique Recording	60	16 Seawind Audio	40
		LYNBROOK		24 Variety Recording Studio	60	16 Soundmasters Studios	40
		8 Soundscape Studios	32	24 Zeami Studio	61	PRIMOS	
		MARCELLUS		ORCHARD PARK		24 E.J. Stewart	59
		16 Rose Hill Studios	40	4 Hymntronic Records	31	SELLERSVILLE	
		NEWBURGH		16 Long Island Sound Studios	39	8 DAK Audio	30
		8 J.M. Studio	31	PORT JEFFERSON		STATE COLLEGE	
		NEW YORK CITY		24 Boogie Hotel Studios	44	16 Filmspace Audio	36
		24 AAA Recording	42	PORT JEFFERSON STATION		STROUDSBURG	
		24 A&R Recording	42	16 Sound Cottage	40	8 Mountain Sound	31
		24 A.D.R. Studios	42	RED HOOK		YORK	
		24 Malcolm Adley Recorders	42	16 Valley Recorders	41	8 Jerruth Recording Studio	31
		24 Associated Recording	42	ROCHESTER			
		24 A Step Above Recording	42	24 Barrett Alley Recording Studios	44	RHODE ISLAND	
		24 Atlantic Studios	42	16 Blue Planet Studios	35	CRANSTON	
		8 Astral Recording Studio	30	16 Dynamic Recording	36	16 Viscount Recording Studios	41
		16 Audio Department	35	24 Funky Records	49	PROVIDENCE	
		24 Audio Works	42	24 Grenadier	50	24 Fedco Audio Labs	49
		24 Automated Sound Studios	42	ROSLYN HTS		WARREN	
		24 Battery Sound	44	24 Sabella Studios	57	24 Normandy Sound	54
		24 Blank Tapes Inc.	44	SMITHTOWN		WARWICK	
		4 Broadcasting Foundation of America (BFA)	30	8 Lip Sync	31	8 Wings-as-Eagles Recording	34
		24 Cannings Audio-Video Recording Studio	46	SCHENECTADY			
		24 Celebration Recording	46	8 MCE Recording Studios	31	VERMONT	
		24 Celestial Sounds	46	SAUGERTIES		BRATTLEBORO	
		24 Chelsea Sound Studios	46	16 Midnight Modulation	39	8 Soundesign	32
		8 Charles Lane Studios	30	24 Utopia Sound Studio	60	COLCHESTER	
		16 Dick Charles Recording Studio	36	STAMFORD		16 Audiovisions	35
		4 Cinema Sound Ltd.	30	24 Kimchanda Sound Studios	50	E. NORWALK	
		24 Columbia Recording Studios	46	SYOSSET		16 Sountec Studios	40
		16 CP Sound	36	24 Kingdom Sound Studios	50	FERRISBURG	
		24 Delta Recording Corp.	47	8 White Cloud Recording Studio	33	16 Resolution	39
		24 Dimensional Sound	47	VALLEY STREAM		GEORGIA	
		8 East Side Sound Co.	30	8 Shuster Sound Studios	32	8 Northern Lites & Sound Studios	32
		24 Electric Lady	47	WESTBURY			
		24 ERAS	49	24 Don Casale Recording Studios	46	CANADA	
		24 Eurosound Studios	49	WHITE PLAINS		ONTARIO	
		24 Evergreen Recording	49	24 Minot Sound	52	OTTAWA	
		16 F-V Sound Ltd.	38	24 Squires Production	59	24 Carleton Productions Ltd.	46
		24 Gramavision Studio	49			TORONTO	
		24 Greene St. Recording	49	PENNSYLVANIA		24 McClear Place Recording & Mastering Studios	51
		16 Harris Communication Systems	38	BATH		24 Nimbus-Soundstage	54
		24 Hit Factory	50	8 Jon Miller Production Studios	31		
		24 JAC Recording Studios	50	BRYN MAWR			
		24 Le Mobile	50	24 Chris Gately Audio Services	49	QUEBEC	
		24 M&I Recording Enterprises	51	CHESTER		MORIN HEIGHTS	
		24 Mediasound	52	4 Leonardo Recording	31	24 Le Studio	50
		16 Mega Music Corp.	39	DARBY		STE. THERESE	
		24 M.S.P. Music: N.Y.C.	52	16 Eden Garden Studio	36	24 Le Mobile	50
		24 National Recording Studios	52	EASTON			
		24 Nola Recording Studios	54	8 King Henry Productions	31		
		24 Opal Recording Studio	55	ERIE			
		8 Pa Da Recording	32	8 Twanq Recording Studio	33		
		24 Penny Lane Studios	55	GLADWYNE			
		4 Posthorn Recordings	32	24 Kajem Studios	50		
		24 Power Station Recording Studios	55	JOHNSTOWN			
		24 The Ranch	55	16 Audio-Track Specialists	35		
		24 RCA Recording Studios	57	MELROSE PARK			
		24 Record Plant Studios	57	16 Fresh Tracks Recording Studios	38		

All studio information listed has been supplied to the Mix by studios responding to questionnaires mailed in November, 1982. 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.

4 & 8

track

the Northeast

• **ADVERTUNES INC**
46 Railroad Ave., RFD #1, Box 8, Epping, NH 03042
(603) 679-8448
Owner: Darrell & Melinda Murphy
Studio Manager: Darrell Murphy
Direction: Specialized in creative radio commercials and jingles



ARABELLUM STUDIOS
Albany, NY

• **ARABELLUM STUDIOS**
654 Sand Creek Rd., Albany, NY 12205
(518) 869-5935
Owner: The Scarybellum Group
Studio Manager: Yvonne Bantolina
Engineers: Art Stuy
Dimensions of Studios: 18 x 24
Dimensions of Control Rooms: 11' D x 11' W
Tape Recorders: Otari MX 5050 MK III 8 track Otari MX 5050 4 track Sony T 1054 4 track Sony TCR25 2 cassette S 100 IC 582 cassette
Mixing Consoles: Soundcraft 48 24 120 out 16 x 16 trans
Monitor Amplifiers: JBL 7000 DSA 4 M 4000 1 100
Monitor Speakers: Atrium Goston 12000 4000 A 4000
Echo, Reverb, and Delay Systems: Lexicon 480 digital reverb Lexicon Prime Time DDL Custom rate E-mu FX 2000
Other Outboard Equipment: dbx noise reduction dbx compressor Symetrix limiters and signal gates Solid state reverb and delay units Formid Parametric EQ
Microphones: AK 4800er Studio
Instruments Available: Electronic synthesizers and sequencers. Others available on a rental basis.
Rates: \$45/hr rate \$40/hr block rate. Rates minimum on tape extra.

• **ASTRAL RECORDING STUDIO**
also **REMOTE RECORDING**
243 W 30, N.Y.C., NY 10001
(212) 244-8420
Owner: Sam Aldi
Studio Manager: Michael de Benedictis

• **AUDIO ARTS RECORDING STUDIO**
also **REMOTE RECORDING**
806 Monroe St., Endicott, NY 13760
(607) 785-3280 or 754-6175
Owner: Michael Putrino & Greg McQuade
Studio Manager: Michael Putrino & Greg McQuade

• **BROADCASTING FOUNDATION OF AMERICA (BFA)**
also **REMOTE RECORDING**
404 Park Ave. South, New York, NY 10016
(212) 679-3388
Owner: Mrs. C. Probst
Studio Manager: Harold V. Bridges

• **CHARLES LANE STUDIOS**
7 Charles Lane, New York, NY 10014
(212) 242-1479
Owner: Michael F. J. Lynch
Studio Manager: Cliff K. Petroll

• **CHERRY SOUND STUDIO, INC.**
132 N. Third St., Philadelphia, PA 19106
(215) 922-3975, 922-1620
Owner: Robert Cohen
Studio Manager: John Anthony

• **CINEMA SOUND LTD.**
also **REMOTE RECORDING**
311 West 75th St., New York, NY 10023
(212) 799-4800
Owner: Joan S. Franklin
Studio Manager: David Weinstein

• **COLLEGIUM SOUND, INC.**
also **REMOTE RECORDING**
35-41 72nd St., Jackson Heights, NY 11372
(212) 426-8555
Owner: Don Wade, Terry Epstein
Studio Manager: Don Wade

• **CUE RECORDINGS INC.**
Cue Recording Studios • Musiques • Vidicue
1156 Ave. of the Americas, N.Y.C., NY 10036
(212) 921-9221
Owner: Me. Kaiser
Studio Manager: Bruce Kaiser

• **DAK AUDIO**
also **REMOTE RECORDING**
315 Rickert Rd., Sellersville, PA 18960
(215) 723-1167
Owner: Dan Kendra
Studio Manager: Thomas J. Witt
Engineers: Scot Fisher, Gracie Fouike
Dimensions of Studios: 20 x 22 6 x 6
Dimensions of Control Rooms: 17 x 10
Tape Recorders: Tascam 80-8 8 track Tascam 3440 4 track Otari MX5050B 2 track Pioneer RT1050 2 track Sharp RT388A 2 track
Mixing Consoles: Studiomixer II 20x6x4x2, Kustom 8x2
Monitor Amplifiers: Crown Peavey
Monitor Speakers: JBL 4313B Cerwin Vega, Auratone

Echo, Reverb, and Delay Systems: Lexicon 480 4800 4800 4800
reverb
Other Outboard Equipment: dbx Symetrix Tapco Solid State Parametric Equalizer
Microphones: AK 4800er Shure SM57 SM58 1450SI
Studio SMI SM57 SM58 1450SI
Instruments Available: Electronic synthesizers and sequencers, bass amplifier, drum machine
Rates: \$48/hr \$25/hr block rate. Rates minimum on tape extra.

DAK

audio

215/723-1167

DAK AUDIO
Sellersville, PA

• **DARK STAR**
also **REMOTE RECORDING**
63 McCurdy Rd., New Boston, NH 03070
(603) 487-3314
Owner: Jaime R. Saunders
Studio Manager: Jaime R. Saunders

• **DEMO-VOX SOUND STUDIO, INC**
also **REMOTE RECORDING**
1038 Bay Ridge Ave., Brooklyn, NY 11219
(212) 680-7234
Owner: Frank J. Grassi
Studio Manager: Laura Grassi
Engineers: Frank J. Grassi
Dimensions of Studios: 20 x 15 x 8
Dimensions of Control Rooms: 20 x 10 x 8
Tape Recorders: Tascam 80-8 8 track Revox HS77A 2 track TapeSonic 70TRSH 2 track TapeSonic 70DFT full track Sony 355 & 366 4 track
Mixing Consoles: Custom built MPP SA 12 x 4
Monitor Amplifiers: Kenwood KA405 Ultra Sound 100
Monitor Speakers: Custom built and tested and Pioneer
Echo, Reverb, and Delay Systems: 2) stereo Fisher K10 Boss MXR (4) Electro Harmonix analog delay lines, (4) tape delay lines
Other Outboard Equipment: MXR graphic equalizer limiter and dbx noise reduction 8 channels Phasers flangers noise gate and clap track
Microphones: Beyers M500, Shure SM58 Sennheiser MD416 AKG D190 Sony C22 and AD49 EV 664 and 666 and various condenser and dynamic mikes
Instruments Available: Piano Knabe upright Moog Opus 4 Univox K2 Kora Synthesizer Amped nitar and bass amps full tube
Video Equipment & Services: Complete VHS and 1/2 video production studio or location post production and special effects editing using Sony TV 1 and Panasonic industrial cameras and recorders
Rates: Hourly \$30 mono & 2 track \$4 4 track \$25 \$100 video production \$45 video editing and post production \$25 video dubbing

• **EAST SIDE SOUND CO. INC.**
98 Allen St., New York, NY 10002
(212) 226-6365
Owner: Lou Holtzman, Richard Rittner
Studio Manager: Louis Holtzman

• **EUPHORIA SOUND STUDIO**
also **REMOTE RECORDING**
90 Shirley Ave., Revere, MA 02151
(617) 284-9707
Owner: Howard Cook
Studio Manager: Gordon Hookalo

• **FAR & AWAY STUDIOS, INC.**
also **REMOTE RECORDING**
Box 63, R.D. 1, Chester, NY 10918
(914) 294-7763
Owner: Geoff Gray, Rick Greenwald, Bill Gray
Studio Manager: Lars Grano, Michael Lynch

•• CHRIS GATELY AUDIO SERVICES
also REMOTE RECORDING
P.O. Box 526, Bryn Mawr, PA 19010
(215) 525-3605

Owner: Chris Gately
Studio Manager: Mr. Bill Clark
Extras: Remote work with clients separately. State-of-the-art tracks outboard gear. Tape includes tapes and splices. etc.
Direction: We have experienced the "making" chores for over 15 years for WMMF, WYSI, WJCO, WPST, WSTW, etc. The Pelican Hall of Fame, The Mercury, Ever-Tone, Go-Gos, Joan Jett, Blossie, The Spirit, June Lee, Earth, Smith Local bands include: Robert Hazard, The Howlers, The As, Sparks, Rhythm of Lines, The Sincere Six. We are interested in providing the best quality product with friendly personnel at the most sensible price. Call for details.

•• GRC STUDIOS
also REMOTE RECORDING
1137 Fillmore St., Baltimore, MD 21218
(301) 889-4228
Owner: Rick Galt
Studio Manager: Robert Brown

•• HYMNTRONIC RECORDS
Div. of MusiCo Productions
also REMOTE RECORDING
c/o 7294 Michael Rd., Orchard Park, NY 14127
(716) 675-7052
Owner: David A. Miska
Studio Manager: David Miska, Robert Winters

•• IAN RECORDING & DUPLICATING SERVICES, INC.
exclusively REMOTE RECORDING
76 Bellevue Rd., Andover, MA 01810
(617) 475-4056
Owner: Ian Connors
Studio Manager: Robert Bertoni, John Moran
Engineers: Richard Bertoni, Paul Moran, Alan Holt
Dimensions of Control Rooms: 1 x 4, 4 x 4, 4 x 4, 4 x 4
Tape Recorders: 24 track, 24 track, 24 track, 24 track
Other: MTR, 24 track, 24 track, 24 track, 24 track, 24 track
Tape Duplication: 2 track, 2 track, 2 track, 2 track, 2 track
Mixing Consoles: 4 x 4, 4 x 4, 4 x 4, 4 x 4
Monitor Amplifiers: 4, 4, 4, 4
Monitor Speakers: KEF, KEF, KEF, KEF
Echo, Reverb, and Delay Systems: MI, MIX, XI, 210
Other Outboard Equipment: Ortofon, 4 x 4, 4 x 4, 4 x 4, 4 x 4
Rates: 10% discount on all tape duplication. 10% discount on all tape duplication. 10% discount on all tape duplication.

Microphones: AM, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10
Video Equipment & Services: 16mm, 16mm, 16mm, 16mm
Rates: 10% discount on all tape duplication. 10% discount on all tape duplication. 10% discount on all tape duplication.
Extras: 10% discount on all tape duplication. 10% discount on all tape duplication. 10% discount on all tape duplication.
Direction: IAN is primarily concerned with providing blank cassette and cassette duplications of the highest quality to our clients. IAN works most tapes at AGFA, Sanyo, and BASF tapes. We cassette use: Clients are advised to purchase a number of packages and splices. IAN also provides a full range of professional custom vinyl and cassette duplication services and a full range of professional tape duplication services. We are interested in providing the best quality product with friendly personnel at the most sensible price. Call for details.

•• JERRUTH RECORDING STUDIO
930 North Duke St., York, PA 17404
(717) 854-2542
Owner: Jerry and Doreen
Studio Manager: Jerry and Doreen

•• J.M. STUDIO
also REMOTE RECORDING
149 Grand St., Newburgh, NY 12550
(914) 562-8084
Owner: Jim Marino
Studio Manager: Jim Marino

•• KEWALL PRODUCTIONS RECORDING STUDIO & KEWALL RECORDS
also REMOTE RECORDING
77 Bayshore Rd., Bayshore, NY 11706
(516) 586-2486 and 586-6436
Owner: Keith A. Gierwater
Studio Manager: Walter K. Gierwater

•• KING HENRY PRODUCTIONS
also REMOTE RECORDING

1855 Fairview Ave., Easton, PA 18042
Office: (215) 258-4461, studio (717) 839-9248
Owner: Henry Casella
Studio Manager: Henry Casella

•• LEONARDO RECORDING
1618 W. 3rd St., Chester, PA 19013
(215) 876-0769
Owner: Leonard Casella
Studio Manager: Leonard Casella

•• LIP SYNC
43 William St., Smithtown, NY 11787
(516) 724-3055
Owner: William Lipson

•• THE LITTLE STUDIO
also REMOTE RECORDING
Box 416, Rockland, ME 04841
(207) 594-2497
Owner: John Little
Studio Manager: John Little

•• L.P. STUDIO
35 Driggs Ave., Brooklyn, NY 11222
(212) 383-4625
Owner: L. P. Studio
Studio Manager: L. P. Studio

•• LUV SOUND
980 Suffolk Ave., Brentwood, NY 11717
(516) 273-6880
Owner: Luv Sound
Studio Manager: Luv Sound

•• MCE RECORDING STUDIOS
also REMOTE RECORDING
463 State St., Schenectady, NY 12305
(518) 382-1762
Owner: Mark C. Ernst
Studio Manager: Mark C. Ernst

•• MICRO-MIX
4015 Fairfield Ave., Munhall, PA 15120
(412) 464-0807

Owner: Jim Wilson, Jot Bower
Studio Manager: Jim Wilson, Jot Bower

•• JON MILLER PRODUCTION STUDIOS
also REMOTE RECORDING
7249 Airport Rd., Bath, PA 18014
(215) 837-7550
Owner: Jon Miller
Studio Manager: Jon Miller



MOUNTAIN SOUND
Stroudsburg, PA

•• MOUNTAIN SOUND
also REMOTE RECORDING
314 North First St., Stroudsburg, PA 18360
(717) 424-1702
Owner: Larry Caruso
Studio Manager: Larry Caruso

•• MUSKRAT PRODUCTIONS, INC.
also REMOTE RECORDING
44 North Central Ave., Elmsford, NY 10523
(914) 592-3144
Owner: Smith Street Society Jazz Band
Studio Manager: Bruce M. Nicks

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M

•• NORTH COUNTRY SOUNDS
also REMOTE RECORDING
 175 Bunker Hill Rd., Auburn, NH 03032
 (603) 483-2662
 Owner: Tom Bartlett
 Studio Manager: Tom Bartlett

•• NORTHERN LITES & SOUND STUDIOS
also REMOTE RECORDING
 36 Cedarwood Terrace, Georgia, VT 05468
 (802) 893-1220
 Owner: Tracy L. Fort
 Studio Manager: Tracy L. Fort / E.B. Applegate

•• OAK GROVE RECORDING STUDIO
also REMOTE RECORDING
 65 Clinton St., Malden, MA 02148
 (617) 321-1017
 Owner: [Name obscured]
 Studio Manager: [Name obscured]

•• OCASO NIC RECORDING
 714 Almond St., Vineland, NJ 08360
 (609) 794-2377
 Owner: [Name obscured]

•• PA DA RECORDING
also REMOTE RECORDING
 27 Washington Square N. Rm 4D, New York, NY 10011
 (212) 228-1808
 Owner: P.A. Mason
 Studio Manager: P.A. Mason

•• PEABODY RECORDING STUDIOS
also REMOTE RECORDING
 1 E Mt Vernon Place, Baltimore, MD 21202
 (301) 659-8136
 Owner: John H. [Name obscured]
 Studio Manager: John H. [Name obscured]

•• POSTHORN RECORDINGS
also REMOTE RECORDING
 142 West 26th St., 10th Floor, New York, NY 10001
 (212) 242-3737
 Owner: [Name obscured]
 Studio Manager: [Name obscured]

•• RADIOBEAT
 P O Box 75, Allston, MA 02134 (Kenmore Sq., Boston)
 (617) 738-7412
 Owner: [Name obscured]
 Engineers: [Name obscured]

Dimensions of Studios: 12' x 24' & 10' x 15'
 Dimensions of Control Rooms: 4' x 7' & 8' x 15'
 Tape Recorders: Teac 2402 2 & 4 track (14'), TEAC Tascam Series 70MM 8 track, TEAC 3340S 4 track (14'), TEAC 3300S 4 track stereo, AKAI GX220 4 track stereo, JVC KD75, JVC KD10, JVC K77 and Sony TC140 cassette decks
 Mixing Consoles: Custom built Sontec 120 in x 48 in Graphic EQ on each channel, 2 pairs 2 ohm sends returns, Phantom powered for condenser mics
 Monitor Amplifiers: Sanso, Alesis 900, Dynaco Mark III
 Monitor Speakers: Altec 9855 8A, Yamaha NS10M book shelf type, Lafayette PIP model 18
 Echo, Reverb, and Delay Systems: British Spring Heverb (Granpa Spring Heverb), E-heverb (topology tube type)
 Other Outboard Equipment: 4 x 160 comp ressor limiter, Dual Graphic EQ, Delby noise reductor, TEAC ANR, ANDRO AN-100 ACCUSET parameter EQ, Decca SL 500 MKII cartridge Jensen transformer, tape boxes
 Microphones: AKG 451E, Neumann M 49, U 47, U 87, KM 84, Sennheiser 41, 42, 441, Shure SM 57, SM 58, SM 80, Sony ECM 22, ECM 140, TEAC ME 190, Crown PZM
 Instruments Available: Bury and piano amps, drums
 Video Equipment & Services: IVC, VTR and Sony 4 VTR
 Rates: Call for rates, Drum and real to real and cassette price 40 minutes

Echo, Reverb, and Delay Systems: [Name obscured]
 Other Outboard Equipment: [Name obscured]
 Microphones: [Name obscured]

Instruments Available: [Name obscured]
 Rates: Call for rates

•• RAINWATER RECORDING
also REMOTE RECORDING
 P O Box 7-844, West Hartford, CT 06107
 (203) 278-1015
 Owner: [Name obscured]
 Studio Manager: [Name obscured]
 Engineers: [Name obscured]
 Tape Recorders: [Name obscured]

Mixing Consoles: [Name obscured]
 Monitor Amplifiers: [Name obscured]
 Monitor Speakers: [Name obscured]
 Echo, Reverb & Delay Systems: [Name obscured]

Other Outboard Equipment: [Name obscured]
 Microphones: [Name obscured]

4 & 8
 track
 the Northeast

Rates: [Name obscured]
 Extras: [Name obscured]

•• THE SESSION
 355 Lexington Ave., NYC, NY 10017
 (212) 661-9040
 Owner: John [Name obscured]
 Studio Manager: [Name obscured]

•• SHUSTER SOUND STUDIOS
 29 Burt Court, Valley Stream, NY 11581
 (516) 791-2985
 Owner: Bob Shuster
 Studio Manager: Bob Shuster
 Engineers: Bob Shuster
 Dimensions of Studios: 12' x 24'

Dimensions of Control Rooms: 4' x 7' & 8' x 15'
 Tape Recorders: Scully 2402 & 4 track (14'), TEAC Tascam Series 70MM 8 track, TEAC 3340S 4 track (14'), TEAC 3300S 4 track stereo, AKAI GX220 4 track stereo, JVC KD75, JVC KD10, JVC K77 and Sony TC140 cassette decks
 Mixing Consoles: Custom built Sontec 120 in x 48 in Graphic EQ on each channel, 2 pairs 2 ohm sends returns, Phantom powered for condenser mics
 Monitor Amplifiers: Sanso, Alesis 900, Dynaco Mark III
 Monitor Speakers: Altec 9855 8A, Yamaha NS10M book shelf type, Lafayette PIP model 18
 Echo, Reverb, and Delay Systems: British Spring Heverb (Granpa Spring Heverb), E-heverb (topology tube type)
 Other Outboard Equipment: 4 x 160 comp ressor limiter, Dual Graphic EQ, Delby noise reductor, TEAC ANR, ANDRO AN-100 ACCUSET parameter EQ, Decca SL 500 MKII cartridge Jensen transformer, tape boxes
 Microphones: AKG 451E, Neumann M 49, U 47, U 87, KM 84, Sennheiser 41, 42, 441, Shure SM 57, SM 58, SM 80, Sony ECM 22, ECM 140, TEAC ME 190, Crown PZM
 Instruments Available: Bury and piano amps, drums
 Video Equipment & Services: IVC, VTR and Sony 4 VTR
 Rates: Call for rates, Drum and real to real and cassette price 40 minutes



SMAP SOUND
 Somerville, MA

•• SMAP SOUND
 (a department of The Somerville Media Action Project)
also REMOTE RECORDING
 175 Elm St., Somerville, MA 02144
 (617) 625-7882
 Owner: Non-profit private corporation
 Studio Manager: John Kuzak
 Extras: Half-hour and 15-min capabilities, photo studio and tape rooms, silk-screen services, T-shirts, computer stickers, album covers, CD and 90 min tracks, artist-in-residence program

Direction: We are a complete media resource center offering equipment and services in audio recording, video, silk-screen photography, filmmaking and graphic arts. In addition we function as a 'hands on' training program for local youth between the ages of 14 and 21 years (we also offer courses to adults). By May our new facility which includes new studios for all the above-mentioned media pursuits will be complete. (Seen in the photo is the audio-video studio)

Soundesign
 recording studio

record packages
 tape duplication
 remote recording
 multitrack recording

main street gallery brattleboro, vermont 05301
 802-257-1555

SOUNDESIGN
 Brattleboro, VT

•• SOUNDESIGN
also REMOTE RECORDING
 Main Street Gallery, Brattleboro, VT 05301
 (802) 257-1555

Owner: Simon Chaltoun, William Shaw
 Studio Manager: Simon Chaltoun
 Engineers: William Shaw
 Dimensions of Studios: 24' x 30'
 Dimensions of Control Rooms: 20' x 20'
 Tape Recorders: Otari 5050 Mark III 8 track, Otari 5050 2 track, Bevox A77 4 track, Otari, high speed cassette duplicator DP4050C 2 ratio 4:1, Akai stereo mastering deck GX-F71 (2), Onkyo high speed cassette dubbing deck TA-W60 ratio 2:1, Ampex 400 4 track, Autotronic R-B duplicator 1/2 track
 Mixing Consoles: Solidi Workshop Series 40H 20 x 20
 Monitor Amplifiers: Crown, DC, AOA
 Monitor Speakers: Custom air suspension system, JBL 431B
 Echo, Reverb, and Delay Systems: Master Reverb XI, 200, Solidi Workshop 242C, Solidi Workshop Series vocal doubler, MXH tandem doubler, Mtronics
 Other Outboard Equipment: Telectronic limiter, compressor, LA-2 Ashly parameter EQ, 4 x 160 comp ressor limiter, EXL Exciter, noise gate, 4 tunnel

Microphones: 2 Neumann U87, KM84, AKG 451E, S01E, D1000E, Sennheiser 41, 42, 441, 415, E-V, RE15s, BE11, DS 58, Shure SM57, 58, 85, 81s
 Instruments Available: Bury and piano, drum kit, Ampex KL, Foster J, Jenson, Logo, ratio amp, Gibson amp, Yamaha synthesizer, Benton available for addition instruments
 Rates: 4 track \$3.5/hr, Mix and edit \$20/hr, Duplication and tracks

•• SOUNDHOUND INC
also REMOTE RECORDING
 45 West 45th St., Suite #405, New York, NY 10036
 (212) 575-8664
 Owner: Jeffrey Berman
 Studio Manager: Bill Taylor

•• SOUNDSCAPE STUDIOS
also REMOTE RECORDING
 393 Sunrise Highway, Lynbrook, NY 11563
 (516) 599-4446
 Owner: Jeffrey Berman
 Studio Manager: Jerry Winkowski

•• SOUNDWAVE RECORDING STUDIOS, INC.
Disk mastering specialists
 50 W 57th St., New York, NY 10019
 (212) 582-6320
 Studio Manager: Carol Baker

•• STAFFORD SOUND RECORDING
 11 West 17th St., New York, NY 10011
 (212) 929-1441
 Owner: [Name obscured]
 Studio Manager: Tim Sawyer

Announcing the Great Electro-Voice® Sound In Action™ PL Microphone Drawing!



GREAT NEWS— FINE PRIZES AND FREE T-SHIRTS, TOO!

If you're interested in microphones, EV has some good news for you. Between March 10th and June 10th every PL Microphone purchaser receives a free EV T-Shirt (retail value \$7.95) just for the asking.

And you can enter the great EV PL Microphone Drawing at the same time (no purchase necessary).

Grand Prize is an EV PL Microphone ensemble of 13 mikes custom fitted in a tour case, lots of accessories and a limited edition EV tour jacket (total retail value over \$3,700).

Seventy-five other winners will each receive a free PL Microphone.

HOW TO ENTER

Entry blanks and complete rules are available free at your nearest participating Electro-Voice PL Microphone dealer. You can also get information by writing to Electro-Voice, Inc., Department 615, 600 Cecil St., Buchanan, MI 49107 (enclosing a stamped, self-addressed envelope will help speed a packet to you). Complete the entry blank and mail it on or before June 10, 1983.

FREE T-SHIRTS

Every purchaser of a PL Microphone during the drawing qualification period will receive a free T-Shirt by returning a request form (at your EV dealer's) with the original sales slip and your new mike's warranty card. Your free EV T-Shirt will arrive in 4 to 6 weeks.

TRY OUR PL MICROPHONES

EV is sponsoring the drawing and offering free T-Shirts for one simple reason—we want to show you the great line of eleven PL Microphones.

PL Vocal and Instrument Microphones are accepted worldwide as high quality and reliable tools for working musicians. EV builds them with the expertise acquired from more than 50 years of U.S. production of broadcast, recording and music performance mikes. EV backs their products with solid warranties and expert speedy service.

The full line of EV PL Microphones is presented on the following page. Drop by your EV dealer soon and check out the eleven PL Microphones—and don't forget to enter the PL Microphone Drawing!

EV **Electro-Voice**® INC.
SOUND IN ACTION™

600 Cecil Street, Buchanan, Michigan 49107
TWX: 810-270-3135 • PHONE: 616/695-6831

a **guitar** company

Meet the Great PL Microphones from Electro-Voice®

PL VOCAL MIKES

PL80 Designed with computer-assisted FFT technology, the PL80 super-cardioid has better gain-before-feedback than virtually every other dynamic microphone currently on the market. Its crisp highs and bass-boosting proximity effect enhance a performer's voice without compromising the vocal quality. The PL80 has fast become one of the world's most desired vocal microphones.

PL88L Outstanding performance at an "entry level" price. This dynamic cardioid offers a good gain-before-feedback and voice-tailored frequency response with just the right amount of close-up bass boost.

PL91A This popular cardioid microphone has been refined and redesigned specifically for performers. It features good strong bass boost when held close, superior highs, and an "open" sound over the entire range that makes it a joy to work with.

PL95A As the concert mike of choice by top performers, the PL95A offers superior gain-before-feedback. The wide, linear frequency response and controlled bass boost when held close have made it an international favorite.

PL76B The hottest vocal mike to hit the market in years, this sophisticated cardioid condenser will change your ideas of what a mike can do for your voice. Battery life is an incredible 3000 hours.

PL77B Take the PL76B, add phantom power, a two position bass contour switch, and you have this great vocal mike.

PL INSTRUMENT MIKES

PL20 One of the most coveted microphones in the world, the PL20 is a Variable-D® dynamic super-cardioid created for critical recording and musical sound reinforcement applications.

PL5 A professional instrument mike for super high SPLs, often used for close miking of amplified guitar, bass or synthesizers.

PL6 This super-cardioid is a Variable-D® design which allows directional miking with the characteristic close-up bass boost of directional mikes. This minimizes feedback problems and unwanted sound leakage from other sound sources.

PL9 EV believes this is the best omnidirectional instrument mike on the market. Very flat frequency response over a wide range. Put inside of drums at high SPLs or for high quality recording and capture it all.

PL11 An instrument mike that can double as a vocal mike, the PL11 is another of the fine Variable-D® family great for pick-up of brass, reeds, and overhead percussion.

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a Gulton company
600 Cecil Street, Buchanan, Michigan 49107



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STARDUST

★ ★ ★

RECORDING STUDIO

STARDUST RECORDING STUDIO
Upper Montclair, NJ

•• STARDUST RECORDING STUDIO
615 Valley Road Upper Montclair, NJ 07043
(201) 746-2359
Owner: George Louvis
Studio Manager: George Louvis

•• STILLWATER SOUND STUDIO
also REMOTE RECORDING
11 Turn of River Road, Stamford, CT 06905
(203) 322-0440

Owner: Dominick Costanzo
Studio Manager: Dominick Costanzo
Engineers: Dominick Costanzo
Dimensions of Studios: 24 x 14
Dimensions of Control Rooms: 10 x 9
Tape Recorders: 3M M56 8 track (1" 30 ips), Ampex 451 2 track (1/4"), TEAC 4340 4 track (1/4"), Advent 201 cassette
Mixing Consoles: Allen & Heath 12 x 2 modified, 12 in x 2 out Allen & Heath 142 6 in x 2 out
Monitor Amplifiers: McIntosh MC2100, CM Labs 911
Monitor Speakers: JBL L-100, Altec 604 D, Altec 755 C, others on request

Echo, Reverb, and Delay Systems: Ursa Major Space Station SST 282, others on request
Other Outboard Equipment: Orban 622B parametric EQ Universal Audio 175B limiters, others on request
Microphones: Neumann U67s, Sony C37As, AKG C414EBs D12E, E.V. RE20, RE15, Shure SM56s, Sennheiser MD421s others on request
Instruments Available: Yamaha CP-70 electric grand piano, Wuritzer electric piano, Leedy drum kit, vintage Fender and Ampeg amplifiers, others on request
Rates: \$20/hr. Block rates available.

•• STUDIO 55 PRODUCTIONS
also REMOTE RECORDING
42-55 Colden St., Suite 11P, Flushing, NY 11355
(212) 762-1264

Owner: George Lerner
Studio Manager: George Lerner
Engineers: George Lerner, B.S.
Dimensions of Studios: main 16 x 28, auxiliary 14 x 16
Dimensions of Control Rooms: 12 x 16
Tape Recorders: TEAC (reel/reel) 5100 four track, TEAC (cassette) 860A four track, Phase Linear 800C two track
Mixing Consoles: Fender, (CBS Labs) M12 24 (two of above, one right channel, one for left channel). Complete customized.
Monitor Amplifiers: Phase Linear D50C (4), SAF Mark XXV #2500
Monitor Speakers: Altec Lansing A19 (6) custom, ESS Professional #6

Echo, Reverb, and Delay Systems: (2) Phase Linear 1100 Dynamic Expander and noise reduction, MXR system for delay, etc.; Roland Chorus Master
Other Outboard Equipment: SAE Mark XXVII B 1/2 octave EQ (2) (3) Phase Linear parametric EQ, Phase Linear 5100 Sound Analyzer
Microphones: Shure SM58, SM57, S7565, AKG D1000, various E.V.s
Instruments Available: Full drums (Gretsch), lead guitar (Gibson, Les Paul), keyboards. Others upon request
Video Equipment & Services: 1/2 track VHS color at request, 24 hr. notice
Rates: Special for cassette (stereo) 2-track demo \$25/hr plus tape. Four track \$35/hr includes tape.

•• STUDIO 44
44 Country Corners Rd., Wayland, MA 01778
(617) 358-4075
Owner: Buddy MacLellan

•• STUDIO N
also REMOTE RECORDING

4 & 8 track

the Northeast

706 Waverly Street S-1, Framingham, MA 01701
(617) 872-6843, (617) 965-0778
Owner: Studio N Prods
Studio Manager: Dave Nodiff

STUDIO 3

8-TRACK RECORDING
Tom Blackwell
Tim Tierney

74 Elm St.
P.O. Box 8643
Portland, Me. 04104
207-772-4444

STUDIO 3
Portland, ME

•• STUDIO 3
also REMOTE RECORDING
74 Elm St., P.O. Box 8643, Portland, ME 04104
(207) 772-4446
Owner: Tom Blackwell, Tim Tierney
Studio Manager: Tim Tierney

Studio X

STUDIO X
Ridgewood, NJ

•• STUDIO X
47 Ethelbert Pl, Ridgewood, NJ 07450
(201) 444-9147
Owner: Bill Tesar, Rave Tesar
Studio Manager: Bill Tesar
Engineers: Rave Tesar, Bill Tesar
Dimensions of Studios: 17 x 12, iso room 15 x 12, iso room 7 x 7, lounge
Dimensions of Control Rooms: 15 x 9
Tape Recorders: Otari MX5050 MkIII 8 track, Dokorder 1140 4 track, Technics 1520 2 track, (2) Technics RSM 280 cassette
Mixing Consoles: (2) Tascam Model 5 modified and cascaded 16 in x 8 out
Monitor Amplifiers: BGV Phase Linear
Monitor Speakers: JBL 4313, Auratone 5C

Echo, Reverb, and Delay Systems: G.B.S. reverb system, Lexicon LPM-41
Other Outboard Equipment: dbx 150 noise reduction on 8 tracks, (2) dbx 160-compressor/limiters, (2) UREI LA4 compressor/limiters, MXR 1/4 band stereo EQ
Microphones: AKG, Sennheiser, Crown P2M, Shure, Sony, Countryman direct boxes
Instruments Available: LinnDrum, Sonor drums, LP Percussion, Kaim grand piano, Baldwin spinet, Fender Rhodes, Rhodes, Hammond B3 with pedal board and Leslie, Mim Moog, Hohner D6 Clavinet, Elka string ensemble, Casio 101, Yamaha and Polytone amps
Video Equipment & Services: Audio sweetening using SMPTE time code readers, coloring
Rates: 8 track \$25/hr, block rate \$20/hr

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MEDIA PRODUCERS-CUSTOM RECORDS & ALBUM PRODUCTION
VIDEO TAPING-FILMING-DISC MASTERING-AUDIO SERVICES

TEL-E-VUE PRODUCTIONS
Ferndale, NY

•• TEL-E-VUE PRODUCTIONS
also REMOTE RECORDING
Old Rte. 17 - Box 217, Ferndale, NY 12734
(914) 292-5965
Owner: Paul Gerry
Studio Manager: Pat Gerry
Engineers: one full time; outside engineers can be brought in
Dimensions of Studios: 18 x 22
Dimensions of Control Rooms: 12 x 18
Tape Recorders: (2) Ampex 351 2 track, Ampex 351, Sony TC 850 2 track, Nagra 4 2L mono
Mixing Consoles: Custom built 16 in x 2 out
Monitor Amplifiers: Crown, Marantz
Monitor Speakers: JBL 4311, Auratone, Altec
Echo, Reverb, and Delay Systems: Echo system built into Sony TC 850, Fisher K-14 reverb
Other Outboard Equipment: Fairchild 670 limiter/compressor, Ashly parametric EQ, TEAC graphic EQ, dbx 1 and II
Microphones: Neumann U67, Sony ECM65, ECM22P, E.V. Sound Spot, Western Electric 639A and Shure
Instruments Available: Hardman baby grand piano, White acoustic bass, other instruments available on rental
Video Equipment & Services: IVC K1700 w/10 to 1 lens, Sony 4800 VCR, assorted lighting and sound equipment, 1 camera EFP and ENG production
Rates: Audio-Studio rates are \$50 first hr, \$25 each additional hr. Extra services are billed separately such as tape, editing, disc mastering, etc. Video rates are \$275/hr, includes 2-man crew extras would be electronic editing, tape, travel time, etc.

•• TWANG RECORDING STUDIO
also REMOTE RECORDING
1116 W. 29th, Erie, PA 16508
(814) 864-2308
Owner: John Mazza, Keith Veshecco

•• WHITE CLOUD RECORDING STUDIO, LTD.
also REMOTE RECORDING
538 Jerusalem Ave. (rear entrance), Uniondale, NY 11553
(516) 483-7823
Owner: P. Antonucci, H. Stein
Studio Manager: P. Antonucci, H. Stein

•• WHITEHALL STUDIO
26 Whitehall Rd., Rochester, NH 03867
(603) 332-8614
Owner: A. Thernien
Studio Manager: A. Thernien

Correction: Last month the Missing Persons story should have included Robin Tolleson's byline. Sorry Robin.

4 & 8
track

the Northeast

•• WINGS-AS-EAGLES RECORDING/FULL GOSPEL

Box 3, Warwick, RI 02887
(401) 738-6914
Tape Recorders: Tascam 2424, 2448, 2018, 2424, 2424, 2424
Monitor Speakers: JBL 1008, Auratone
Echo, Reverb, and Delay Systems: Tapco 4400, plus others

Other Outboard Equipment: Lexicon, UREI, MXR, EMI
4:1 Compressor, Hama Dimentia D.A. compressor, E2
4:1 Compressor, All-in-One, Brain, 8:1 Compressor, Aural
Phase

Microphones: AKG 414, 417, AK 147, AK 1400, AK 1
141, AK 1400, Shure SM54, SM57, Beyer M 88, Neumann
5000, M14, etc.

Instruments Available: Fender, Gibson, Gretsch, Guild, and
Hofner amplifiers, Fostex, Neve, and Mott amplifiers
Geo. Benson, Steinbuehler, and Steinbuehler
classical instruments, Hohner

Extras: Woodpecker, Westlake, and other cables and
tape. Electronic, and other

•• ZALMO SOUNDS

also REMOTE RECORDING
Avenue L and East 7th St., Brooklyn, NY 11230
(212) 951-7097
Owner: Zalm Schreiber
Studio Manager: Joseph Schreiber

•• ZARR SOUND STUDIO

1819 Avenue N., Brooklyn, NY 11230
(212) 339-1599
Owner: Fred Zarr
Studio Manager: Dick Ferguson

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- 1981 February, Southeast Studio Listings. Ray Stephens, Norbert Putnam, Ardent Recording
- 1981 March, Southwest Listings. History of the Tape Recorder, Producer's Role, Indian Creek Recording
- 1981 April, Northeast Listings. Todd Rundgren's A/V Studio, Women in Audio, History of the Tape Recorder, Part 2
- 1981 May, AES Spring Update. Mike Love's Studio, Envelope Controlled Filters, Women in Recording, Part 2
- 1981 June, Video Focus. Moogy Klingman, Video Equipment Manufacturers, Introduction to Video
- 1981 July, Recording Services Listings. Recording School Listings, Remote Recording, Maintenance
- 1981 August, Studio Design Listings. Dealing with the Block, Building Materials, Monitor Field
- 1981 September, S. Cal. Listings. Tape Editing, Creative Record Promotion, John Ryan
- 1981 October, North Central Listings. Digital Reverberation Survey, Chicago Music History
- 1981 November, 1982 New Products. Studio Monitor Report, Synthesized Drums, Larry Carlton, Al Kooper
- 1981 December, Tape to Disk Listings. Lee Hitenour, Tape Tips, Sony Compact Disk, High Speed Duplication
- 1982 January, Northwest Listings. Mixing Consoles, Grateful Dead's Studio, Lindsey Buckingham
- 1982 February, Southeast Listings. Digital Synthesizers, Dave Edmunds, John Meyer
- 1982 March, Northeast Listings. Carl's Studio, Microphones, Phil Ramone
- 1982 April, Video Focus. A/V Studio Listings, Video Music Satellite, Mike Nesmith, Legal Issues in Video
- 1982 May, Southwest Studios. Quarterflash, Charlie Pride's Studio, Digital Recording, Fantasia Digital Soundtrack
- 1982 June, Concert Sound & Remote Recording. Drum Machines, Part 2, Keyboard Artists Forum, Video Legal Issues
- 1982 July, Studio Design. Listings of Designers, Suppliers, Power Amp Report, Quincy Jones
- 1982 August, 5th Anniv. Issue. History of Recording, Asia, Oscar Peterson, Bill Porter
- 1982 September, S. Cal. Listings. Film Sound, The Dress, Video Synchronizer, Survey, Digital Discussions, Part 1
- 1982 October, N. Central Listings. Studio Monitors, John Cougar, Digital Discussions, Part 2
- 1982 November — SOLD OUT.
- 1982 December, Tape to Disk. Record Restoration, Starting Out in Video, Digital Discussions, Part 4
- 1983 January, Northwest Listings. Multi-track Analog Tape Recorders, Record Restoration, Michael Palin.
- 1983 February — SOLD OUT.
- 1983 March, Southeast Studios. Echo, Reverb & Delay, I, Buddy Buie, Electronic Religion, Phil Dunne
- 1983 April, Music Video. Video Production, Post Production Listings, Missing Persons, Echo, Reverb & Delay, II.

It is never too late to catch up on all the important aspects of today's recording scene.

Check above the specific back issues you want, fill in your address below, and enclose a check or money order for the proper amount (\$3.00 per back issue, \$4.00 per issue for foreign shipment).

Mail to: Mix Magazine Back Issues, 2608 9th St., Berkeley, California 94710. Please allow 6-8 weeks for delivery.

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16 track the Northeast

••• AIRCRAFT STUDIOS
(formerly Lost In Music)
Dormont Square, Pittsburgh, PA 15216
(412) 343-5222
Owner: David M. ...
Studio Manager: ...
Engineers: ...
Dimensions of Studios: ...
Tape Recorders: ...
Mixing Consoles: ...
Monitor Amplifiers: ...
Monitor Speakers: ...
Echo, Reverb, and Delay Systems: ...
Other Outboard Equipment: ...
Microphones: ...
Instruments Available: ...
Rates: ...

••• ALL STAR SOUND STUDIO
4 First Ave., Bloomfield, NJ 07003
(201) 743-8497
Owner: ...
Studio Manager: ...

••• AMPHION ENTERPRISES INC
114 Brooklyn Street, Rockville, CT 06066
(203) 871-1786
Owner: ...
Studio Manager: ...

••• ARTCRAFT VIDEO & AUDIO RECORDING STUDIOS
285 E 49th St., P.O. Box 55 Rugby,
Brooklyn, NY 11203
(212) 778-5150
Owner: ...
Studio Manager: ...

••• AUDIO DEPARTMENT, INC
110 W 57th St., NYC, NY 10019
(212) 586-3503
Owner: ...
Studio Manager: ...

••• AUDIO IMAGE
also REMOTE RECORDING
95 Little Tree Lane, Hilton, NY 14468
(716) 392-9500
Owner: ...
Studio Manager: ...

••• AUDIO-TRACK SPECIALISTS
also REMOTE RECORDING
260 Ohio St., Johnstown, PA 15902
(814) 539-4197
Owner: ...
Studio Manager: ...

Studio Manager: ...
Engineers: ...
Dimensions of Studios: ...
Tape Recorders: ...
Mixing Consoles: ...
Monitor Amplifiers: ...
Monitor Speakers: ...
Echo, Reverb, and Delay Systems: ...
Other Outboard Equipment: ...
Microphones: ...
Instruments Available: ...
Video equipment & services: ...
Rates: ...

••• AUDIOVISIONS
Foley Road, Colchester, VT 05446
(802) 864-0848
Owner: ...
Studio Manager: ...



AUDIO DEPARTMENT, INC
New York, NY

••• BAKER ST STUDIOS
1072 Belmont Street, Watertown, MA 02172
(617) 484-9812
Owner: ...
Studio Manager: ...

••• THE BARGE SOUND STUDIO
92 Lionshead Drive West, Wayne, NJ 07470
(201) 835-2538
Owner: ...
Studio Manager: ...
Engineers: ...
Dimensions of Studios: ...
Tape Recorders: ...
Mixing Consoles: ...
Monitor Amplifiers: ...
Monitor Speakers: ...
Echo, Reverb, and Delay Systems: ...
Other Outboard Equipment: ...
Microphones: ...
Instruments Available: ...
Rates: ...

••• BIRCH RECORDING STUDIO
113 West Main St., Secretary, MD 21664
(301) 943-8141
Owner: ...
Studio Manager: ...

••• BLUE PLANET STUDIOS
also REMOTE RECORDING
2295 Westfall Rd., Rochester, NY 14618
(716) 244-7107 or 244 5638
Owner: ...
Studio Manager: ...

The Brewery recording studio

THE BREWERY RECORDING STUDIO CO., INC
Bayside, NY

••• THE BREWERY RECORDING STUDIO CO. INC
also REMOTE RECORDING
215 23 42nd Ave., Bayside, NY 11361
(212) 225-6811
Owner: ...
Studio Manager: ...
Engineers: ...
Dimensions of Studios: ...
Tape Recorders: ...
Mixing Consoles: ...
Monitor Amplifiers: ...
Monitor Speakers: ...
Echo, Reverb, and Delay Systems: ...
Other Outboard Equipment: ...
Microphones: ...
Instruments Available: ...
Rates: ...



“Right on the Money, Again!”

At Harvey, buying a console and a 16 or 24 track recorder no longer has to be a big production.

If the industry set forth to design a multitrack console and recorder that would be ideal for “audio for video,” they would design the Soundcraft 1600 Console and 762 Series Recorders. These tools are cost effective, transparent sounding and easy to calibrate and maintain.

A fully professional compact system to meet your SMPTE lock up needs without driving your budget into “clipping.”

HARVEY

25 W. 45TH ST., NEW YORK, N.Y. 10036 (212) 921-5920

••• LONG ISLAND SOUND STUDIOS
also REMOTE RECORDING
50 Audrey Ave., Oyster Bay, NY 11771
(516) 922-4770
Owner: Tom Fabbriante
Studio Manager: Gaetano Salvo

••• MASON HALL STUDIOS
also REMOTE RECORDING
Mason Hall, SUNY, Fredonia, NY 14063
(716) 673-3153
Owner: State Univ. of New York
Studio Manager: Ken Beckenbender

••• MEGA MUSIC CORP.
345 E. 62nd St., New York, NY 10021
(212) 838-3212
Owner: Donald R. Dannemann, Jr., O'Neill
Studio Manager: Fero Sereno



MIDNIGHT MODULATION
Saugerties, NY

••• MIDNIGHT MODULATION
2211 Pine Lane, Saugerties, NY 12477
(914) 246-4761
Owner: Michael Bitterman
Engineers: Michael Bitterman
Dimensions of Studios: 20 x 20
Dimensions of Control Rooms: 10 x 8
Tape Recorders: Tascam 85 16/8 16 track, Tascam 80 8/8 track, Otari 5050B 2 track, Tascam 122 cassette 2 track
Mixing Consoles: Sound Work, Inc. 80 16
Monitor Amplifiers: BGW 750B, Symetrix
Monitor Speakers: JBL 4411 (in control room), Klipsch Cornwall studio, JCA cubes
Echo, Reverb, and Delay Systems: Ultra-Matrix 8 x 32, digital reverb, Lexicon PCM41 digital delay
Other Outboard Equipment: dbx 160X limiter/compressor, UREI 1176L N limiter/compressor, DOD graphic EQ
Microphones: Neumann U87 (2), F.V. HF20, Sennheiser 42111, J. Sauer SM57/2, Sony FCM 44, FCM 450
Instruments Available: Yamaha grand piano, ARP 2400 1 inn Drum computer, Poly 800 synthesizer
Video Equipment & Services: VHS documentation of recording session (Call for rates)
Rates: 16 track \$65/hr (\$50 bulk), 8 track \$45 (\$25 bulk)
Special: "The \$5,000 album" - call for details
Extras: CBS library of sound effects, Martin cue boxes, Production services, Moveable drum/vocal booth
Direction: Being located in the Woodstock area, we have the availability of some of the best musicians in the country for sessions. Some of the top musicians like John Hill have been very impressed with our sound. Our living room type atmosphere releases the pressure of big studio recording. We are the only commercial 16 track in the area and our \$5,000 album is unique. We also offer arrangers and producers.

••• NEW LONDON COUNTY RECORDERS
2514 Route 32, Uncasville, CT 06382
(203) 848-9908
Owner: Ron Draco, Wayne Manca
Studio Manager: Anthony Pop, Meredith
Engineers: Ron Draco, Wayne Manca
Dimensions of Studios: 30 x 20
Dimensions of Control Rooms: 14 x 20
Tape Recorders: Ampex MM 1000 16 track, Tascam 80 8/8 track, TEAC 3300 SX 1/2 track, TEAC A1501 cassette, Akai GXF51 cassette
Mixing Consoles: Tascam M5 (w/expander), Tascam M5, Tascam M1
Monitor Amplifiers: Phase Linear 800, Bump, SAE XXXIX Pioneer
Monitor Speakers: EAS MS50 HI X, Auratone
Echo, Reverb, and Delay Systems: Debut, D14, Digital, B, Electroson, Fostex, MXR flanger/doubler, MXR pre 4 transposer

16 track the Northeast

Other Outboard Equipment: dbx 160X limiter/compressor, dbx noise reduction, Omnidyn noise gate, GT 4, SAE parametric EQs, Audiorats 4100 and 4200 parametric EQs, EXH Exciter, Bump graphic EQ
Microphones: Sennheiser 421s, 441s, AKG D12, 401, 420, 460C, D1000s, Shure F.V. Audio to tape, UREI direct boxes
Instruments Available: Acoustic piano, Rhodes electric synthesizer, Gretsch drums, Gibson Les Paul, Gibson 335, Fender Precision fretless bass, 6 and 12 string acoustic guitars, Marshall amplifiers
Rates: 16 track recording and mix time \$40/hr, block rate, 10 hrs \$45 per hour

••• NICKEL RECORDING
also REMOTE RECORDING
168 Buckingham St., Hartford, CT 06106
(203) 524-5656
Owner: Jack Stang
Studio Manager: Jack Stang, Tim Newton
Engineers: Chet, Jack Stang, Scott, Tim Newton, assistant engineers Ed Burgess, Bret Herman
Dimensions of Studios: 400 sq ft
Dimensions of Control Rooms: 40 x 30
Tape Recorders: Tascam 85 16/8 16 track, Tascam 80 8/8 track, Otari 5050B 2 track, TEAC 3300 4 track
Mixing Consoles: Tascam 15 24 in x 8 16 out
Monitor Amplifiers: Nikko & Crown
Monitor Speakers: JBL & Auratone
Echo, Reverb, and Delay Systems: Plate reverb, Lexicon Prime Time digital delay & Orban
Other Outboard Equipment: dbx limiters, DeEsser, compressors, noise gate, Aural Exciter, UREI graphic EQ
Microphones: AKG D12A, 414s, 451s, Sennheiser 421s, Sennheiser SM81, E.V.
Instruments Available: Acoustic piano & guitar, guitar amps, baby grand piano, Fender Rhodes, acoustic guitar, guitar amps, Rogers drum kit, synthesizer, on request
Rates: 8 track \$29/hr, 16 track \$49/hr, Call for block rates

••• THE OUTLOOK
Star Route, Box 180, Bethel, ME 04217
(207) 824-3246
Owner: Ted St. Pierre
Studio Manager: Connie St. Pierre

••• PARIS RECORDING
466-A Hawkins Ave., Lake Ronkonkoma, NY 11779
(516) 981-7502
Owner: Brian M. Under
Studio Manager: Rudy Perrone

••• PARK SOUTH II
6 Letts Ave., Manahawkin, NJ 08050
(609) 597-3481
Owner: Terry Byrns
Studio Manager: Ed Manion

••• PLUM STUDIO
2 Washington St., Haverhill, MA 01830
(617) 372-4236
Owner: Richard Teeagan
Studio Manager: Richard Teeagan and Vivian Teeagan

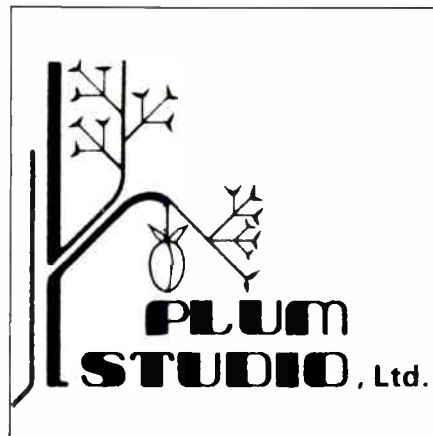
••• P & P STUDIOS, INC.
also REMOTE RECORDING
17 Viaduct Road, Stamford, CT 06907
(203) 327-9204
Owner: John Fishback, Terry Putter
Studio Manager: Aldena Leonard
Engineers: Cliff Pua, John Fishback
Dimensions of Studios: A 1000 sq ft, B 100 sq ft
Dimensions of Control Rooms: A 350 sq ft, B 225 sq ft
Tape Recorders: MCI JH100 16 track, MCI JH110 2 track, Ampex 440C 4 track, Ampex 440B 4 track, Ampex 440C 2 track, Ampex 440B bulk track, Tandberg 6000 1/4 track, TEAC 2340 4 track, Nakamichi 480 cassette
Mixing Consoles: A Syncon 18 x 16, B Allen & Heath, 8 in x 4 out
Monitor Amplifiers: PSE, McIntosh, HH Dyna

Monitor Speakers: B12 Reds, Auratones, DAC 710s
Echo, Reverb, and Delay Systems: MIC MIX CSREQ 23 and M R III, Loft delay
Other Outboard Equipment: dbx 160s, LA 3As, Orban parametric EQ, Multi track parametric EQ, Tapro graphic EQs, Eventide Omnipressor, CBS Audimax, CBS Volumax, Orban De-Essers, PAL, Pulse Generator, Resoler Pulsor, QUAD/Eight noise gates, Dolby A & B, Phase Linear auto correlator
Microphones: Neumann, AKG, Sennheiser, Beyor, Shure, E.V., Sony, etc
Instruments Available: Yamaha grand Rhodes 88, Gretsch drums w/various small percussion, Fender Twin Reverb and Bassman amps (tube)
Video Equipment & Services: Video/audio hookup via SMPTE for sweetening, Shootout stage on premises, All formats available for 24" 1"
Rates: 16/8 4/2 1 track \$50/hr, Video, film and multi media rates available upon request
Extras: High speed custom cassette and reel to reel duplication, multi media programming center w/AVI Eagle, film video inset stage, multi plexing to film and video, jingles and custom scoring for video, film and multi media presentations
Direction: Our studio, designed by John Storyk, offers a warm environment that doesn't intrude on the mood of the user. We are service oriented and understand that helping our clients achieve their goals is our job. We have a facility that enables our clients to work in a variety of media under one roof.



RBV RECORDING/VIDEO
Southbury, CT

••• RBV RECORDING/VIDEO
Main St. North, Southbury, CT 06488
(203) 264-3666
Owner: Jack Jones
Studio Manager: Manone Jones



PLUM STUDIO
Haverhill, MA

••• RESOLUTION, INC.
also REMOTE RECORDING
The Barn, N. Ferrisburg, VT 05473
(802) 425-2111
Owner: William Schuler, President
Studio Manager: Michael Couture
Engineers: Michael Couture, Chas. Eller, Ty Atherholt
Dimensions of Studios: 30 x 45 x 26
Dimensions of Control Rooms: 30 x 20
Tape Recorders: MCI JH114 16/8 track, MCI JH110A (3) 2 track, MCI JH10B (1) 2 track, Scully 280 (2) 2 track, Sony PCM-F1 digital recorder
Mixing Consoles: MCI JH416 16 in x 16 out, Electrodyne 8 in x 2 out

Monitor Amplifiers: Crown DC 400, DC 150, RCW 500-750
Monitor Speakers: IREI 811A Time Alone, Altec 60486 in 620 cabinets, ADS 710, Auratone, Altec 9847, Koss ESP

Echo, Reverb, and Delay Systems: AKG BX20, Eventide digital delay, tape delay

Other Outboard Equipment: Dolby A all channels, Eventide processor IREI 1176 1A/A, 2) dbx 160, 5) Lano EQ, VSC all transients, API 550A EQ, Auicor parametric EQ, EXB A and E, Sona for automation, octave octave EQ

Microphones: Neumann U87, U47, KM84, AKG 414, C451Es, Sennheiser 421, Beyer 100, F.V. RE20, RE11, RE16, H16s, Sony ECM 435, ECM 99A, ECM 150, Shure SM57, SM58, 33 cut bms, 16 EQ, AKG CK9, shot gun, HME RCA 770X

Instruments Available: Steinway grand piano, Fender Rhodes ARP 9600, Oberheim OBXA, assorted percussion

Video Equipment & Services: Computerized 2 1/4" B roll editing system with 1" master tape capability, Sony broadcast camcorder, video compression, freeze frame, TBC, music video

Rates: Please call

Extras: We have high capacity 1/2" microfilm, cassette duplication, LP quality cassettes, premium exhibition shrink wrap, Altec Transmunity Blank cassettes, any length on AGFA tape in best housing

Direction: Its time for "state of the art" audio and video to join their forces in creating pertinent product. Buyers are becoming more sophisticated and demand more versatility in their finished projects. High quality 1/2" cassettes and compact LPs are the listen and medium. People are less tolerant of his speed duplicated cassettes.

••• RIK TINORY PRODUCTIONS
622 Route 3A, Cohasset, MA 02025

••• ROSE HILL STUDIOS
also REMOTE RECORDING
3929 New Seneca Tpk., Marcellus, NY 13108
(315) 673-1117
Owner: Rose Hill Group
Studio Manager: Vincent Talt

••• ROSS-GAFFNEY, INC.
21 W. 46th St., New York, NY 10036
(212) 719-2744
Owner: James Gaffney
Studio Manager: Richard Woods

••• ROXY RECORDERS
648 Broadway, New York, NY 10012
(212) 475-6571, 420-0527
Owner: Roxy Recorders, Inc.
Studio Manager: Steve Manos, Denny Sawan
Engineers: Dave Duchinier, chief engineer, Todd Anderson, Larry Carlin, James Howarth, various independents
Dimensions of Studios: 25 x 20 x 12H w/ vocal and amp isolation booths
Dimensions of Control Rooms: 19 x 16 x 10H, sloped ceiling

Tape Recorders: Ampex MM1000 (modified by Paul Blank), 16 track, Otari MX 7800 w/ remote locate, 8 track, Otari MX 5050B 2 track, Technics 1520 2 track, Awa, Sony cassette decks
Mixing Consoles: Tancient Sones 16 transformerless custom modified by Paul Blank, 24 in x 16 in

Monitor Amplifiers: Crown DC 400, D 150, Haller D 200
Monitor Speakers: IREI 811, Auratone SC CV 300K

Echo, Reverb, and Delay Systems: Master Room XI, 405 w/ variable delay, Lexon in PCM41, digital delay, B4 BE 20 stereo flanger, tape delay, Echoplex II, Harmonizer 149

Other Outboard Equipment: dbx 158, 155, 180 noise reduction, Dolby A noise reduction, Valley People Dyna-mite cyclamis processor, 2) Gemini, Bay Buer, comp limiter, 4) dbx 161 compressor limiter, Pulse, FQH program E, 2) Neptune Synetrix stereo processor, EQ, A-vest, noise gates, 4) Astay SC 4, Sammon Claptrap, han Flap, synthesizer, IREI digital 94 meter, in me 60 Hz pulse width compressor

Microphones: Neumann U47 (tube), U67 (case), U89, AKG 414, 451, Sennheiser 441, F.V. RE20, 100, Beyer 100, Shure 57, 545, Countryman EM 101, Audio cassette boxes, Sony DPM50

Instruments Available: Steinway grand piano, Fender Rhodes stereo, Marshall, Fender, Roland, Ampex guitar amps, Ludwig World 7 passage drum kit, m/v percussion

Rates: Call for rates
Extras: Tape duplication, computerized mixing
Direction: 1969 credits: Duno Kwatin, Kenny Barroll, Vic Johns, Phillippe Sasse, Cal Calloway, Bill Evans, Soxter, Diana Huxto, Villio Deple, Mike Stern, Mike Ferrara, Tom Wats, Meezy Bass, Judy Green, Debbie ABC Video, FMI Liberty, Preygram, Columbia, Outbank, Volv, Whoopies, Warner Amex, Wal Derby, HBO/V, Video Magazine, Meco, Mardian, New, in the City

••• SAINTS & SINNERS SOUND STUDIO
432 Western Ave., Albany, NY 12203
(518) 454-5278
Owner: College of St. Rose
Studio Manager: Charlie Vatalaro

••• SCOVIL PRODUCTIONS
69 Main St., Norwalk, CT 06851
(203) 227-7018 or 853-8872
Owner: Gary Scovil
Studio Manager: Gary Scovil

16 track the Northeast

••• SEAR SOUND
235 W. 46th St., New York, NY 10036
(212) 582-5380
Owner: Walter E. Sear
Studio Manager: Richard Kuntzev, h
Engineers: Walter Sear, Bill Titus, (also independents)
Dimensions of Studios: A 15 x 37
Dimensions of Control Rooms: A 12 x 16, B (film mix) 15 x 25
Tape Recorders: Ampex MM1200 16 track, Studer B67 2 track, Ampex 400 (4) 2 and 1 track, Ampex 351 92B mono Pilot tone, Naagra 4 2 1 track, Westrex & Magnasync 35 mm and 16 mm dubbers, 4 & 1 track
Mixing Consoles: Custom all vacuum tube 16 in x 16 in, Westrex RA1409 rerecording console 20 in x 4 out
Monitor Amplifiers: McIntosh (tube)
Monitor Speakers: IREI JBL
Echo, Reverb, and Delay Systems: EMT 140 (tube), Eventide 949 Harmonizer, Audio Instrument Co. 44A, DeltaLab DL 1
Other Outboard Equipment: Pullec and IREI EQs, Teletronix (LA2A) and Fairchild limiters, Orban stereo synthesizer
Microphones: AKG C12, C28As, C451EB, Neumann U87, U67s, U47s, KM56s, KM84, RCA 44, 77s, Sony C37, ECM30, F.V. 66fs, RE16s, Sennheiser MD421, MK405, MK805, Shure SM57s
Instruments Available: Steinway C (75"), Fender Rhodes, Hammond C3 Baldwin Harpachord, Celesta, Moog IIIIC, EMI, 101 EMI Rock studio, Ampex and Traynor amps, Rogers and Slingerland drums, Leedy tympani, orchestra bells, bell tree, percussion kit
Video Equipment & Services: Scoring to video picture, 35 mm film workprint transfer to 2 1/4" videocassette, Sony VCS800, VO2610, Panasonic PV1200 VHS, Sony and Sharp color monitors
Rates: \$90/hr. Please call for demo and block rates
Extras: Complete 35 mm film sound facilities, sound effects and original music libraries, large collection of famous vacuum tube equipment, classic vacuum tube microphones, many studio instruments, convenient location
Direction: In our twelve years, Sear Sound has served many famous musicians, producers, and record companies in producing highest quality album masters, demos, film and theatrical scores and commercials. Our clients return year after year. We are supportive to talent and producers. Our engineers are also professional musicians, familiar with artistic pressures, and provide a warm, creative atmosphere. Our equipment is carefully selected and maintained with highest sound quality; our only objective.

••• SEAWIND AUDIO, INC.
ONLY REMOTE RECORDING
1134 Fox Chapel Rd., Pittsburgh, PA 15238
(412) 963-7455
Owner: George Mechlin
Studio Manager: Tom Mechlin
Engineers: Tom Mechlin, independents welcome
Dimensions of Control Rooms: Remote track 20 x 7
Tape Recorders: Otari, MTR 90 16 track, Tascam 80 B 8 track, Technics 1520 2 track, Pioneer CTB 9191 cassette
Mixing Consoles: Tancient 3216 24 in x 16 out
Monitor Amplifiers: Crown Technics
Monitor Speakers: CSI MDM 4 near-field monitors, Auratone 5C
Echo, Reverb, and Delay Systems: Orban 111B reverb, Eventide H910 Harmonizer DDL
Other Outboard Equipment: IREI 1A4 compressor limiters, Eventide Flanger, Orban para EQ, 28 channels dbx, belden snakes, Custom x'former mike splitters
Microphones: Condenser and dynamics from AKG, Beyer, E.V. Sennheiser, Shure, Sony
Rates: Remote recording only. Please call for rates.

••• SECOND STORY SOUND (UNDERGROUND)
5 Wyncote Pl., Great Neck, NY 11021
(516) 466-4075
Owner: Greene
Studio Manager: Finnada, Gizzlewald

••• SERVISOUND, INC.
35 West 45th St., New York, NY 10036
(212) 921-0555
Owner: Nat Levy, Mike Shapiro
Studio Manager: Chris Nelson

••• SILVER LAKE RECORDING
Lake St., Kingston, MA 02364

(617) 585-4642
Owner: Fred Danner, David James
Studio Manager: Dave James

••• THE SOUND COTTAGE
also REMOTE RECORDING
P.O. Box 513, Port Jefferson Station, NY 11776
(516) 928-9397
Owner: Jim & John, Barabaz
Studio Manager: Jim Barabaz

••• SOUND TECHNIQUES
3 Laurel St., Watertown, MA 02172
(617) 923-4040
Owner: Leon Jankin
Studio Manager: Jim Anderson, Leo Jankin



SOUNDMASTERS STUDIOS, INC.
Pittsburg, PA

••• SOUNDMASTERS STUDIOS INC.
344 N. Sheridan Ave., Pittsburg, PA 15206
(412) 661-8928
Owner: Stephen H. Wachter
Studio Manager: Bruce Pleasant

••• SOUNTEC STUDIOS INC.
25 Van Zant, East Norwalk, CT 06855
(203) 853-3433
Studio Manager: Doug McLennan

••• STUDIO DUAL
also REMOTE RECORDING
101 Pine St., Portland, ME 04102
(207) 773-7176
Owner: John Finer
Studio Manager: Nancy Caracol

••• STUDIO 198
also REMOTE RECORDING
198 Bloomfield Ave., Newark, NJ 07104
(201) 481-0972
Owner: Fowler Play Records Inc.
Studio Manager: Greg Eirasson

Engineers: Tony McDaniels, Tom Terrell, Kevin Ferdinand, Rich Seaver, Lee Gray, Duke Terrell, Maintenance engineers, Chuck Russo, Greg Eirasson
Dimensions of Studios: A 40 x 14 x 14, B 18 x 18 x 10
Dimensions of Control Rooms: A 14 x 18 x 12, B 14 x 18 x 10
Tape Recorders: Ampex MM1200 16 track, Otari MX 5050B 8 track, Otari MX 5050B 2 track, 2) Ampex 354 2 track, 3) Sony digital VR210 PCM 0 master tape 2 track
Mixing Consoles: Custom built 20x20x8x2, custom built 12x4x4
Monitor Amplifiers: Sounco systems PA 5002, Dynaco S1 4101, 1100 custom built 100 channels
Monitor Speakers: Altec Ba Réis, IREI 4 111, Auratones, Bose 800 (no monitor)
Echo, Reverb, and Delay Systems: Echoplex II, Marshall Mini Modulator, MBH flanger, U.M. Space Station G, Lexicon PCM 4, DDI, Yamana, 1010 AT1
Other Outboard Equipment: 2) A time Arts parametric EQ, 3) Astay SC50 limiters, 2) dbx 164, 4) dbx 160, Ampex MX 45 tube mixer, 4x2, 1, Shure M67 4x1, 3) Urban Silence filters, 4) Omnidirectional mics
Microphones: Neumann U47s, U87s, U89s, Sennheiser MD441s, MD 421s, F.V. RE20s, 15r 11s, b64s, r66s, 1777s, Sony ECM 51P5s, Shure SM57s, SM58s, Countryman D1s, Sennheiser D1s, Jensen transformers
Instruments Available: Upright piano, upright bass, 10 electric amps, Fender Marshall Ampex etc.
Video Equipment & Services: 1) and 2 1/4" production and post production
Rates: 10 track \$80/hr 8 track \$40/hr 2 track digital \$80/hr 2 track \$25/hr Video rates upon request

••• TRACK RECORDERS
 also REMOTE RECORDING
 8226 Georgia, Silver Spring, MD
 (301) 589-3086
 Owner: G. Wythoff
 Studio Manager: J. Crenca

••• TROD NOSSEL
 10 George St., P.O. Box 57, Wallingford, CT 06492
 (203) 269-4465
 Owner: Trod Nossel/Artist
 Studio Manager: Richard P. Robinson

••• VALLEY RECORDERS
 12 St. John Street, Red Hook, NY 12571
 (914) 758-5167
 Owner: Paul Antonelli, Richard Jones
 Studio Manager: Richard Jones
 Engineers: Paul Antonelli, Richard Jones
 Dimensions of Studios: 32' x 25' x 15'
 Dimensions of Control Rooms: 25' x 20'
 Tape Recorders: Ampex MM 1100 16 track, Otari S050B 2 track
 Mixing Consoles: APSI 2002 26 in x 24 out
 Monitor Amplifiers: Dynaco 400 Crown D40 Techniques amp
 Monitor Speakers: JBL 4311 Burhoon Crimsoms Auratones
 Echo, Reverb, and Delay Systems: UREI 1176 2 UREI 11A4s AKG BX 10 Lexicon Prime Time Master Room reverb
 Other Outboard Equipment: Ashly SC50 limiter Ashly SC69 parametric EQ dx 160 163 117 Eventide Phaser Eventide Harmonizer Soundcraftsman EQ c/bx noise reduction
 Microphones: Neumann AKG Beyer Crown EV Sennheiser Shure and Sony
 Instruments Available: Chickering Centennial grand piano Yamaha trums and a wide variety of keyboard instruments and amplifiers
 Rates: Call for rates

••• VISCOUNT RECORDING STUDIOS
 also REMOTE RECORDING
 486 Wellington Ave., Cranston, RI 02910
 (401) 467-9362
 Owner: Russell J. Martin
 Studio Manager: Russell J. Martin
 Engineers: Russell J. Martin Patrick Eastman
 Dimensions of Studios: 25' x 18' x 9' plus piano trap and isolation trap
 Dimensions of Control Rooms: 14' x 14' x 9'
 Tape Recorders: MCI JH114 16 16 track, Scully 280 2 24 track Crown CX801 P2 2 track Otari remotes 8 track
 Mixing Consoles: API MCI custom 16 in x 16 out, Quantum remotes 20 in x 20 out
 Monitor Amplifiers: Crown McIntosh Techeratt
 Monitor Speakers: UREI 814s E.V. Sentry Vs Auratones and Jensen TBF 6s
 Echo, Reverb, and Delay Systems: Audicon plate Lexicon Prime Time Lexicon digital 224 reverb, Sound Workshop analog
 Other Outboard Equipment: Allison Gain Brains UREI 1176 11N, UREI 11A4s Kopexes Eventide Phaser Orban sibilance controller
 Microphones: Neumann U87s U64 Sony ECM 22, Shure 546s, SM81s, E.V. HE16 HE15s, RE20, DO54s, 654A, Sennheiser MD 421 AKG D 24E, Altec M 30
 Instruments Available: Yamaha C 3 grand piano, Ampeg B 15 bass amp, Fender Princeton reverb amp
 Rates: 16 track \$45/hr, 2 track \$25/hr, 4 track \$30/hr Remotes quote only

Not all Wireless Microphones are Created Equal



This One Is A Telex

Recommendations by performers, as well as engineers, have made Telex the fastest growing wireless mic system in the industry.

Performers tell us they prefer Telex wireless mics because of the rich, full-bodied sound. And because the mics feel and look like conventional microphones.

To quote performers:...the Telex wireless mic sounds superior to any I've used for vocals—wired or wireless...
 ...the freedom it gave our group sold me on the concept, and the sound sold me on Telex...

Audio and broadcast engineers stated that they prefer Telex because with just the addition of a second antenna, they have the most reliable diversity* wireless mic receiver available, indoors or out. And because the compander circuitry provides dynamic range from a whisper to full fortissimo.

To quote engineers:...the Telex wireless is the best we've tested, and we've checked them all...
 ...from a quarter mile, the signal was still crisp and clear...
 ...for the money Telex outperformed all others we tried...

When you're ready for wireless mics, Telex offers you a choice of three VHF frequency groups, hand held or belt-pack transmitters, dynamic or electret microphones and a host of accessories. Compare our specs against any others, and by all means, compare the price. We're quite certain you'll also prefer Telex. Made in USA. Please write for full details.

*US Patent No. 4293955 Other patents applied for.

Quality Products for the Audio Professional



TELEX

TELEX COMMUNICATIONS, INC.

9600 Aldrich Ave. So., Minneapolis, MN 55420 U.S.A.
 Europe: Le Bonaparte—Office 711, Centre Affaires Paris-Nord, 93153 Le Blanc-Mesnil, France



Watch for
 Details in June

24 track

the Northeast

•••• AAA RECORDING
130 West 42nd (n552), New York, NY 10036
(212) 221-6626
Owner: Walter Auerbach
Studio Manager: Fred Varon

•••• A&R RECORDING
322 W 48th, New York, NY 10036
799 7th Ave., New York, NY 10019
(212) 397-0300
Studio Manager: Cliff Brant

•••• A D R STUDIOS
also REMOTE RECORDING
325 West End Ave., New York, NY 10023
(212) 486-0856
Owner: ADR Studios
Studio Manager: Stuart Averbach

•••• MALCOLM ADDEY RECORDERS
A Division of Kaleb Sounds Inc
also REMOTE RECORDING
210 Riverside Drive, New York, NY 10025
(212) 865-3108
Owner: Malcolm Addey

•••• ALPHA INT'L RECORDING STUDIOS
also REMOTE RECORDING
2001 W Moyamensing Ave., Philadelphia, PA 19145
(215) 271-7333
Owner: Peter Polillo
Studio Manager: Robert Samuels

•••• ASSOCIATED RECORDING
723 7th Ave., New York, NY 10019
(212) 382-0660
Owner: Nathan Schnapf, Paul Friedberger
Studio Manager: Bob Bava

•••• A STEP ABOVE RECORDING
281 5th Ave., New York, NY 10016
(212) 686-2487 or 684-9238
Owner: D Exile Inc
Studio Manager: Joe Manzella
Engineers: Mike Morley
Dimensions of Studios: 40 x 18 in x 5 x 10 bathroom tiled
iso booth for voice over, 10 x 10 glass and wood iso booth
Dimensions of Control Rooms: 19 x 17
Tape Recorders: MCI JH16 24 track, TEAC 3440 4 track, 2
MCI JH110A 2 tracks, Pioneer 2 2 track, Pioneer CT F9191
cassette decks
Mixing Consoles: MCI JH52H 28 in x 32 out
Monitor Amplifiers: Yamaha P2200s
Monitor Speakers: JBL 4311s, Auratones, E.V. Sentry 100s,
Foxtex custom design
Echo, Reverb, and Delay Systems: EMT 240, Lexicon 224, Or
ban Parasound dual reverb, Lexicon PCM 41
Other Outboard Equipment: Marshall Time Modulator, Even
tide Harmonizer H949 w/manual keyboard, DeltaLab Acoustic
computer, Orban Parametric EQ, dbx 165, 162, 160s, UREI
LA4s, UREI limiting amplifiers, Kepex
Microphones: Neumann U87s, E.V. RE20s, Sennheiser 421s,

AK44 4-Step, MCI C12, LA4, A1M, and many
more. Also AK 1 AT, ETC etc.
Instruments Available: Yamaha 700, B3, 500, 700, 900,
Fender, Hammond, and Wurlitzer. Various keyboards, and
other instruments. Also a variety of amplifiers, mixers, and
other audio equipment. Monitor: For the low price of \$50, 100,
New York, New York 10014, and Manhattan.
Rates: Contact office



A STEP ABOVE RECORDING
New York, NY

•••• ATLANTIC STUDIOS
1841 Broadway, New York, NY 10023
(212) 484-6093
Owner: Atlantic Records Inc
Studio Manager: Paul Sloman

•••• AUDIO INNOVATORS, INC.
also REMOTE RECORDING
216 Boulevard of the Allies, Pittsburgh, PA 15222
(412) 471-6220
Owner: Norman J. Cleary
Studio Manager: Craig Hubler
Engineers: John Struthers, Chief Eng: John Branay, Janey
Davis, Danny Ferraro, Creative Serv. Dir.: Sue Harber
Dimensions of Studios: A: 31 x 26, B: 12 x 10, Baym: 18 x
13
Dimensions of Control Rooms: A: 20 x 17, B: 16 x 15, Baym:
22 x 15
Tape Recorders: (4) 4M M79 24 tracks, 4M M79 B track, 2)
Ampex ATR 102 2 tracks, Ampex AG 440 2 track, (3) Scully
280 B 2 tracks, 4M M79 2 track
Mixing Consoles: A: Amek M2000A 2500, 46 in x 24 out, B:
Spectra Sonics Custom, 20 in x 6 out, Baum Spectra Sonics
1032, 32 in x 32 out
Monitor Amplifiers: Crown 300, SAE 2400L, BGW 750, (4)
BGW 450s, Spectra Sonics Tri amp, Technics SE A3
Monitor Speakers: JBL 4333, 4430, 4311, UREI 81.4, 815,
Auratones
Echo, Reverb, and Delay Systems: Lexicon 224, AKG

Shamber, DeltaLab DL4
Other Outboard Equipment: arx noise reduction, Orban Para
graph EQ 674 stereo EQ, sibilance controller, Eventide Har
monizer, Omnipressor, UREI 1176 limiters, Audio Design limiters,
FXP Exciter, Kepex Gain Brain, dbx Flanor, DeltaLab DL2
Acoustic computer
Microphones: Neumann 67, 47, 89, 47, KM84, AKG Senn
heiser E.V. Sony
Instruments Available: Baldwin 900, 900, 900, Baldwin baby
grand, aram kit, Celeste, Hammond B3, W Leslie alternate per
mission
Video Equipment & Services: A. J. for video post production,
4" and 1" restoration, RTX 4600 and RTX Shadow SMPTE inter
lock systems, Barco and Sony monitors, JVC, Sony and Panasonic
4" U-Matic machines
Rates: Available upon request

•••• AUDIO WORKS
360 East 57th St., NY, NY 10022
(212) 980-3445
Owner: Shelton Leigh Palmer and Co. Inc.
Studio Manager: Phil Winters

Shelton Leigh Palmer & Co.

Music, Lyrics & Creative Sound

360 East 57th Street
New York, New York 10022
212-980-3445

AUDIO WORKS
New York, NY



Mobile Audio/Video

AURA-SONIC LTD.
Flushing, NY

•••• AURA-SONIC LTD.
REMOTE RECORDING
140-02 Poplar Ave., Flushing, NY 11355
(212) 886-6500
Owner: ASI, AURA-Sonic Ltd.
Studio Manager: Steven Remote
Engineers: Steven Remote
Tape Recorders: Ampex MM1200 24 track, Otari 5050 4 track
Otari 5050 4 track
Mixing Consoles: Harrison Alive 32x42x8, 2 Sony MX20
16x8 totalling 48 channels
Monitor Amplifiers: (2) Yamaha P2200, Crown D150, Crown
D160
Monitor Speakers: JBL 4311, E.V. Sentry 100, EAW MS50
Auratones, Advent
Echo, Reverb, & Delay Systems: MICMIX XL305, PCM 41,
Marshall time modulator, Roland Space Echo (other FX available)
Other Outboard Equipment: (12) Rebus 201 noise gates, (2)
Rebus 203 compressor/limiters, Rebus 211 timer, (2) dbx 160X, (2)
dbx 160, Crown EQ-2, Orban 662B, SAE 27B, (2) Ashly SC50,
(2) Shure Audiomasters
Microphones: Sennheiser 421, 441, 416, 211, E.V. RE20, RE16,
RE15, 635A, 664, DS35, AKG C451E, D12, D190E, D1000E,
Shure SM58, SM57, 548SD, PE54D, Sony ECM 50, Neumann
KM84 (other mikes available)

THE SAFEST PLAYGROUND IN NEW YORK



Synthesizer technology has come a long way since Moog introduced voltage control.

Getting new, musically useful sounds can take hours of costly studio time.

This is not a new problem. But, we have a new solution...a Creative Playground designed to meet the needs of the fast-paced deadline oriented commercial music business.

Producers and musicians can now realize their ideas with optimal creativity at minimal cost.

At our creative playground you'll find every important piece of analog and digital synthesizer equipment ever manufactured, including some very powerful computers to control them.

You'll also find Shelly Palmer. He designed the creative playground to realize his musical ideas. He can help you realize yours.

**Shelton
Leigh
Palmer
& Co.**

Music, Lyrics & Creative Sound

360 East 57th Street
New York, New York 10022
212-980-3445

Contact: Jim Kafadar Circle #222 on Reader Service Card

24
track

the Northeast

Video equipment & Services Full video and video hookups. Call for more information on this service: 2 GBC closed circuit TV, 2 GBC cameras, 2 GBC 5" B&W monitors, 3 channel switcher, Sony 19" Trinitron monitor.

Rates Please call for quote!

Extras 1 48 channel splitter, 1 24 channel splitter, 76 mike lines available to track, 4x15 pair over 200' of snake cable in all types of lengths, 7.1 of our Bantam Track-Elect. We also offer 4M, 5, and 4 track rental.

Direction Our philosophy is to bring the multi-media multi-track control room to the concert, home and/or anywhere desired to develop the visions and sounds needed. We are offering our mobile unit as a complete basic track, mixdown and post production control room for clients ranging from top video back-cam units to local artists and bands. We have worked with Steve Wonder, Frank Zappa, Lona Lovett, James Brown, The Police, David Byrne, Steve Earle, to name a few.

**** **AUTOMATED SOUND STUDIOS**
1500 Broadway, New York, NY 10036
(212) 869-8520

Owner: Steve & Arthur Friedman, Herb Gordon
Studio Manager: Harvey Gordon

Engineers: Arthur Friedman, Steve Friedman

Dimensions of Studios: A 1 shaped 60' x 45' x 46' B 40' x 25' x 4 track narration rooms

Dimensions of Control Rooms: A 20' x 20' B 15' x 15' 24 track mix room 20' x 25' w vocal booth

Tape Recorders: (2) Studer A 80 4 track, 4M Series 79 24 track, (5) Studer A 80 4 track, (5) Studer B 67 2 track, (5) Studer A 67 2 track, Studer A 80 2 track (4), (6) Studer A 80 mono

Mixing Consoles: (2) Neve 6078 (custom) w Nevac 40 in x 42 out, Neve (custom) 8058 48 in x 24 out, (4) Avidronics 501 24 in x 24 out

Monitor Amplifiers: 14 McIntosh 2100's (8 Crown next gen amps, McIntosh 2400)

Monitor Speakers: (16) 604 BC's, (4) Big Bees, (2) JBL 4311, (2 pair) Kirkcoaters, (5) Auratones, Visconk, K.I.H., Kitchen Radio, UREI HI 1A

Echo, Reverb, and Delay Systems: (6) EMT, Master Room reverb, (8) Duononural 224s, (2) DDI, (4) ARG

Other Outboard Equipment: Summit Bank Harmonizers Orban parametrics 1A4A, 1A5s Neve compressors, Dolby

Microphones: Neumann U87s, U47s, KM86, 85, AKG 414s, 60 assorted mikes

Instruments Available: 2 sets Ludwig drums, 2 Steinway grand pianos, 2 Fender Rhodes pianos, 2 Hammond B3 organs w Leslie speakers, 2 Musser vibes, 5 Fender amps, assorted percussion

Video Equipment & Services: IVC, Sony

Rates: Please call

**** **AVIATION SOUND STUDIOS**

1615 Gravesend Neck Road, Brooklyn, NY 11229
(212) 646-1992

Owner: Mr. Ian Toller

Studio Manager: Betsy Grant

BARRETT ALLEY
recording studios

BARRETT ALLEY RECORDING STUDIOS, INC.
Rochester, NY

**** **BARRETT ALLEY RECORDING STUDIOS INC.**
also **REMOTE RECORDING**
120 East Ave., Rochester, NY 14604
(716) 325-7235
Owner: Mick Heyea, Walt Schnable
Studio Manager: Mick Heyea



BATTERY SOUND
New York, NY

**** **BATTERY SOUND**
90 West St., New York, NY 10006
(212) 227-3896

Owner: Mark Friedman
Studio Manager: Paulan Frates

**** **BAYSIDE SOUND RECORDING STUDIO**
also **REMOTE RECORDING**

200-70 39th Ave., Bayside, NY 11361
(212) 225-4292

Owner: Bayside Sound Recording Studio, Inc.
Studio Manager: David Finc

**** **BLANK TAPES INC., RECORDING STUDIOS**
37 West 20th St., New York, NY 10011
(212) 255-5313

Owner: Rich Vetter, Pres. Lou Vetter, Vice-Pres. Bob Blank
Studio Manager: Lou Vetter, General Mgr. Jim Doherty, Studio Mgr. Susie Kaiser, Office Mgr.

Engineers: Chief Engineer: John Bradley, Chief of Maintenance: Bill Fuszewski, Engineer: Joe Arletta, Bruce Jones, Bob Blank, Hooper Keay, Jim Doherty

Dimensions of Studios: A 24' x 35', B 8' x 10', C 20' x 26'
Dimensions of Control Rooms: A 12' x 16', B 14' x 16', C 16' x 20'

Tape Recorders: (4) MCI JH114 24 track, MCI 14" reel 4 track, (5) MCI JH110 2 track, Scully 280 2 track, Studer A80 2 track
Mixing Consoles: MCI automated 542 42 in x 42 out, MCI automated 428 28 in x 24 out, MCI 416 24 in x 24 out

Monitor Amplifiers: (4) Crown 300s, (4) Crown 150s, (3) Crown 75s, (2) Crown 60s, (2) McIntosh 2100s, (2) McIntosh 2500s, (2) Bryston 4R, Bryston 4S

Monitor Speakers: Bump Time, Alonest, Big Bees, E2s, JBL 4311s, Auratones - also any additional speaker on request

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

Other Outboard Equipment: Pultec MCI 5 & EQH 2 equalizers, UREI 549, 117s, 540 EQs, parametric 622B, Soundcraft's mer. 20 1/2A, Teletronix LA2A, 1A As, UREI 175 A limiter, Kerpex and Hooper M over noise gates, Gain brains, dbx 160s, Fairchild 160 comp. resser, Eventide Harmonizer and Inst ant Phasers, Altec Filter 90s/B, Orban Sibilance Controller 516 EC, DeltaLab Acoustic Computer, Audio Design Recording Vocal Stressor F 769 X B, Dolby and dbx noise reduction on every machine

Microphones: Neumann U87s, U47s, U67s, U64s, KM85s, KM84s, Sennheiser 414, 441s, RCA DXL, 44s, EV RE, 1, BE 25s, HE 5s, Senn. 4, 4, ECM 50, AK 4451, D108FS, D108S, Senn. SM57s, 57, 4, Beyer M 60s

Instruments Available: Steinway M grand piano, Yamaha C7 grand, 2 Hammond B3 organs, Mod. Str. Ensemble, Shimmer drum, 2 vintage Fender Rhodes 88 in 7 1/2" Snyd drums, conga, timbales, vibas, percussion kits, other rentals also available on request

Rates: Contact General Manager, Lou Vetter

**** **BLUE JAY RECORDING**
669 Bedford Road, Carlisle, MA 01741
(617) 369-2200

Owner: Bob and Janet Lawson, Steve Lamotte
Studio Manager: Bob Lawson

Engineers: Glenn Berger, Gary Linstrel, Michael Golub

Dimensions of Studios: 27' x 39'
Dimensions of Control Rooms: 18.5 x 17'
Tape Recorders: MCI JH114, Autolocator III 24, MCI JH110B, HTZ III 2 track, Studer B67 2 track, Revox A77 1/4 track 2 track, 3 Techniques RSM85 MKII cassette decks
Mixing Consoles: MCI JH636 automated parametric, EO modified 32
Monitor Amplifiers: Bryston 4 M, Intosh 2100, assorted smaller Crown amps
Monitor Speakers: UREI Time Aligned Monitors, Auratones, Yamaha NS10s

Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb oration system, all programs including 14 x 16, EMT 140 stereo tube, Loft tanger, Lexicon 93 Prime Time, Ursula Major Space Station, DeltaLab Harmonic Computer, (2) DeltaLab Filtertrons

Other Outboard Equipment: UREI LA4As, 117/61Ns and LA 2As, Allison Research Gain Brains and Kerpex, Eventide 949 Orban 516 DeFesser, Dolby M24 H noise reduction, Truist parametric EQs, dbx 165 compressor, (4) dbx 904 noise gates, dbx 905 equalizer, Pultec EQP equalizer, Ashly stereo parametric equalizer, SC66A, Orban stereo parametric equalizer 662B

Microphones: Neumann U47s, U87s, KM85s, KM84s, AKG C414 EBs, C451s, others: Sennheiser, E.V., Shure, Beyer, Crown PZMs

Instruments Available: Steinway B 1927 seven foot Wuritzer electric piano, Rhodes 88 and others with notes

Rates: \$85/hr for 24 track recording and mixing, \$60/hr for live 2 track
Extras: Energy saving earth sheltered custom building in country setting, 30 minutes from Boston offers lounge, kitchen, privacy, extreme acoustical isolation and a wide dynamic range studio suited to both noise reduced and digital recording

Direction: George Thorogood and the Destroyers (Rouder), Aerosmith (CBS), Pat Metheny, Andy Pratt, Tom Hush, Joe Perry, The Grails Band, Jonathan Edwards, Tom Schultz



BOOGIE HOTEL STUDIOS
Jefferson, NY

**** **BOOGIE HOTEL STUDIOS**
709 Main St., Port Jefferson, NY 11777
(516) 473-6655

Owner: Steve Bramberg, Jeff Kawalek, Don Berman, Robert Ludwig, John Rose

Studio Manager: Steven Bramberg

Engineers: Don Berman, Jeff Kawalek, Bob Ludwig, Chris Isaac, Jim Sparling, Bob Tice, Chief Engineer

Dimensions of Studios: 50' x 60' x 20' ceiling w 2 iso. booths 15' x 20' each

Dimensions of Control Rooms: 14' x 20.5'

Tape Recorders: Studer A80VU MKII 24 track, Studer A80RC 2 track, (2) Studer B67 MKII 2 track, Ampex MM1200 24 track, Ampex ATR102 2 track

Mixing Consoles: Neve 6078, 48 32

Monitor Amplifiers: McIntosh, Crown, H & H

Monitor Speakers: UREI HI 1A, JBL 4311, JBL 4311 A, Auratones

Echo, Reverb, and Delay Systems: EMT stereo plate 2 live chambers, (2) Lexicon Prime Time delays, Lexicon 224X, AMS digital Harmonizer reverb

Other Outboard Equipment: (2) Eventide Harmonizers, (6) Pultec, Orban 622 parametric EQ, 4 Valley People Dyna Mites, 4 MXR noise reducers, 2 Universal Audio tube limiters, (4) Neve limiter/compressor, 20 1/2 A, (4) UREI 117s, 2 A+D Com. pack API graphic EQ, 11 x 15.5, amon, 4, (4) limiter

Microphones: Neumann, U47s, U67s, U87s, KM84, KM85, AKG C451E, 2 EB414, 2 C451, 2 D1000E, D12E, Sennheiser 414, 421, 441, Senn. SM57s, SM56, SM58, SM7, E.V. 60s, (2) BE20, (2) Crown PZM

Instruments Available: Yamaha grand piano, Hammond B3 w Leslie, Ludwig & Rogers drums, assorted guitar amps

Video Equipment & Services: Q100k 4110, 2 for video system

Rates: Call for info - Block rates available

**** **BROCCOLI RABE RECORDING STUDIO**
184 Ballentine Drive, N Haledon, NJ 07508
(201) 427-1644 or 427 8316 or 423-9669

Owner: Mr. Brian Drasco
Studio Manager: Mr. Brian Drasco

The 6120 is an original — not just a warmed-over copy of some other duplicator. It's brand new, and offers you more time-saving, quality features in one compact package than any other duplicator on the market today.

FAST

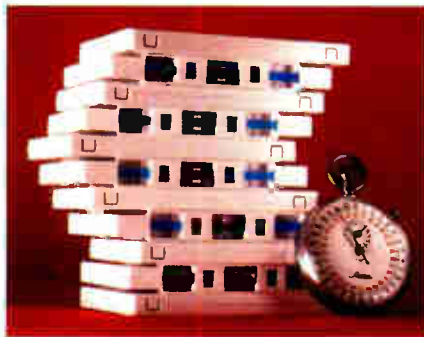
16-to-1 copying speeds from reel or cassette. Reel modules run at either 60 or 120 ips and cassettes run at 30 ips, which means you can copy up to eleven one hour programs in less than two minutes!

EFFICIENT

The 6120 accepts either 7" (178 mm) or 10½" (267 mm) reels, so you don't waste time rethreading from one reel format to another. All key setups and adjustments are made easily from the front of the system, so you don't have to waste time moving or disassembling the 6120. Accurate monitoring and precise adjustments of audio and bias levels are made possible even at high speeds, because of quick response LED level indicators. All cassette slaves are independent, so a jammed tape won't shut down the entire system, and a LED indicator warns you of an incomplete copy in case a cassette tape jams or ends before the master.

If you want good duplicates start with a great original

The new Telex 6120



You can produce eleven C-60 cassette tapes in less than two minutes!

EASY AUTOMATED OPERATION

The 6120 practically runs itself. The system features automatic end-of-tape stop and auto recue on the reel master, and a choice of manual or auto rewind on the cassette master, providing virtually uninterrupted operation. Changes in equalization are made automatically when you change speeds on the reel master, thereby reducing setup time and avoiding errors.

EXPANDABLE

The modular, building block concept lets you buy just what you need today and expand the system to meet your growing needs tomorrow. Modules simply plug together. There's no need to add people or space as the system grows, because the 6120 is so compact that even a full system can be operated by one person.

QUALITY TRADITION

For over 20 years now, Telex has been the choice of those who are fussy about the quality of their duplicate tapes. The brand new 6120 is made in the U.S.A. in the Telex tradition of quality, so parts and service are always available. To learn more about the 6120, write today for complete specifications and production capabilities. While you're at it, make an appointment to see our special 6120 video tape presentation entitled "Beating Real Time".



TELEX COMMUNICATIONS, INC.

9600 Aldrich Ave. So., Minneapolis, MN 55420 U.S.A.
 Europe: Le Bonaparte—Office 711
 Centre Affaires Paris-Nord, 93153 Le Blanc-Mesnil, France.

- Send me literature
- I want an appointment to see the special 6120 video tape presentation.

TELEX COMMUNICATIONS, INC.
 9600 Aldrich Ave. So.
 Minneapolis, MN 55420

Name

Title

Company/Organization

Address

City State Zip

Best time to contact

Phone No.



CANNINGS AUDIO-VIDEO RECORDING
New York, NY

**** CANNINGS AUDIO-VIDEO RECORDING
STUDIO INC.
244 W. 49th St., New York, NY 10019
(212) 581-0120
Owner: James Cannings
Studio Manager: James Cannings

**** CARLETON PRODUCTIONS LTD
also REMOTE RECORDING
1500 Merivale Rd., Ottawa, Ontario Canada K2E6Z5
(613) 224-1313
Owner: Sandra Brodsky
Studio Manager: Walter Black



CARRIAGE HOUSE STUDIOS
Stamford, CN

**** CARRIAGE HOUSE STUDIOS
119 West Hill Road, Stamford, CN 06902
(203) 358-0065
Owner: Carriage House Studios West Hill Productions, Inc.
Studio Manager: Johnny Montanese and Jon Kell

**** DON CASALE RECORDING STUDIOS, INC
377 Plainfield St., Westbury, Long Island, NY 11590
(516) 333-7898
Owner: Don Casale
Studio Manager: Don Casale

**** CELEBRATION RECORDING INC
2 West 45th St., New York, NY 10036
(212) 575-9095
Owner: MZiff Inc.
Studio Manager: Jack Zimmerman
Engineers: Mark Hood, Holly Jones, Bill O'Connell
Dimensions of Studios: A: 12 x 12, B: 11' x 11' (main control room),
recording booth: B: 14 x 12
Dimensions of Control Rooms: A: 11 x 14, B: 11 x 17
Tape Recorders: 2 M/M 79 2 track, 2 M/M 79 4 track, 2
M/M 79 2 track, Sully 280 4 track, 2 Sully 280B, track 4
Sully 280B mono, MCI JH 1.0 mono, Beyer 4 track, Beyer 4
track, Tandberg, Sony Technics base 60
Mixing Consoles: Harrison 32 x 2, 2 in x 2 out, Harrison 3624,
4 in x 24 out
Monitor Amplifiers: (1) Crown DC 800 driving each control
room monitor, Phase Linear 400 for main playback
Monitor Speakers: Super Breda, Beyer, JBL 100, Auratones
Echo, Reverb, and Delay Systems: AKG BX 20, 20 EMI MIC
MIX, Eventide Digital H910, Capson Time Curve, Marshall Time
Modulator
Other Outboard Equipment: Eventide Phasor and Envelope
Filter, Lower Pilec Reflex, Guntram, Orban, parametric EQ

Eventide Flanger, Orban, parametric eq, ampers UA
ampers, Tevtonax ampers, Beyer, Orban processor, Dorys
Muren, B. House, parametric eq
Microphones: Neuman U87, U87, U47, KM84, KM64, AKG
414, D224E, Beyer M160, M 200, EV 60, BE15, BE20, Senn
heiser 421, 441, Crown, PZM, 40
Instruments Available: All at the studio: 2 Fender Rhodes
174, 188, Steinway grand piano, Baldwin upright piano, Honky
tonk piano, Hohner clavichord, HMI Roe's, Chiro, Musser vibes
pedal tympans, coratus, 2 complete drum kits, snator and bass
amps, ARP Synthesizer, and we can rent for you (with no price
mark up) every instrument under the sun from New York's best
rental service
Video Equipment & Services: VHS, Laserdisc
Rates: Competitive and flexible rates, call (212) 967-2127
575-9095

**** CELESTIAL SOUNDS
919 Second Ave., New York, NY 10017
(212) 355-4825
Owner: Tom Farrell
Studio Manager: Tom Farrell
Engineers: Chris Snow, Goldman, Greg Adams, Steve A. (arrange)
Dimensions of Studios: 2 x 20 plus, arranged in 1, 50 booths
Dimensions of Control Rooms: 11 x 17
Tape Recorders: Studer A80 MKIII, 4 track, Studer A80, 2
track, 2 Studer B67 4 track, 2 track, 12, Awe 4800, cassette, track
2, Awa M800 2 track
Mixing Consoles: MCI 600, 40 automated, 40, 40
Monitor Amplifiers: 3 B/W 750B, B/W 250, 40 SAE, 250s
Crown D150
Monitor Speakers: UREI 813 Time Alignment, ADS 400, Yamaha
NS10M, Auratones
Echo, Reverb, & Delay Systems: EMI, 50 channel power, EMI
140 stereo plate, Lexicon Prime Time, Eventide Harmonizer
Limiter
Other Outboard Equipment: 1. Faber EQ 1A, 1. Plate
MEO, API 550 and 550A EQ, Kopter 1 and II noise gates, 40
channels dbx 21b noise reduction, dbx 90 and 115 comp ampers,
UREI LA4 comp, Adson, Guntram, UREI parametrics
Microphones: Neuman U87, U89, Tevtonax M, S, AKG
414, D224E, Sennheiser 421, 421, Sennheiser, EMI EK1, con
tactor
Instruments Available: 2 Steinway grand piano, Fender
Rhodes OBX A synth, Hammond B3 or C, Ltd. 6 in machine,
Hornboms, DMX, drum, parametric, Moser, B. house, Fender,
Roland Jazz Chorus, and Sunn bass amplifiers, Associated per us
son
Rates: \$125/hr. Block rates available



CENTURY III RECORDING STUDIO
Boston, MA

**** CENTURY III RECORDING STUDIO
545 Boylston St., Suite 505, Boston, MA 02215
(617) 267-9800
Owner: Ross Giffella
Studio Manager: Ward Eilmore

**** CHELSEA SOUND STUDIOS
130 W. 42nd St., New York, NY 10036, and
135 W. 14th St., New York, NY 10011
(212) 866-4440 and (212) 242-7326
Owner: Mark Hovv
Studio Manager: Paul B. D.

**** COLUMBIA RECORDING STUDIOS
also REMOTE RECORDING
49 E. 52nd St., New York, NY 10019
(212) 975-2958
Owner: CBS Inc.
Studio Manager: William Lowinsky




The \$2460 Tape Synchronizer!

Although the price is low, the technology is high. Features include our proprietary "Smart-Lock" fast re-synchronizing, two play-speed SMPTE/EBU time code readers, one tach pulse/control track updating circuit, 1/100-frame offset adjustment, DC and FM capstan control and automatic calculation of drop-frame offsets. Importantly, it easily handles audio tapes with poor quality, missing or discontinuous time codes, as well as tapes which have been spliced, using our new "Splice-Trap" technique.

Use it alone as a two-transport record, play and layback synchronizer. Use a Reader module with it if you want high-speed chase capability. When you're ready, add other SYSTEM 2600 modules to expand your tape synchronizing capabilities. You can even assemble our modules into a sophisticated, versatile television sound editing system, with up to eight slave transports. And you can interface it to your studio computer at any stage.

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•••• DELTA RECORDING CORP.
also REMOTE RECORDING
16 W. 46th St., New York, NY 10036
(212) 840-1350

Owner: Bernard Zimney

Studio Manager: Robert Liebert

Engineers: Andrew Milano, Chad Egan, Robert Deiber, John Clemente, Ron Kassam, Larry Foster

Dimensions of Studios: A: 27' x 41' B: 14' x 12' C: 12' x 8'

Dimensions of Control Rooms: A: 18' x 19' B: 14' x 9' C: 12' x 10'

Tape Recorders: MCI JH114 24 track Ampex ATR100 Ampex 440 2 track mono Sanyo 2804 2 track Awa cassette recorder Sony high speed cassette duplicator

Mixing Consoles: Trident TM 32 in x 24 out Trident TM 16 in x 8 out Tascam 58 in x 4 out

Monitor Amplifiers: M-Intosh 2105 M-Intosh M75 Crown D150 Crown D400

Monitor Speakers: B&B 411 411 A-rations Alto 9844 Neuthele MDM4

Echo, Reverb, and Delay Systems: AKG BX 20 Sound Work shop Fairchild Eventide Emoplate II

Other Outboard Equipment: Numerous tube Pultec EQ numerous limiters parametric EQ noise gates phasers and FFX units dbx N Dolby Marshall Time Modulator Eventide Harmonizer Hoyer Mayer & Quira 8 noise gates

Microphones: Neumann U47, 48, 87, RCA 77, F V BE20, BE10, AKG 451, Sennheiser 421, Sony ECM50, ECM 33, CTC

Instruments Available: Steinway grand B 3 w Leslie Fender Rhodes Ampex B 15 wood Ludwig drum sets Kora Poly 6

Rates: Rates on request. Block time available

DIGITAL by Dickinson

DIGITAL by DICKINSON
Bloomfield, NJ

••• DIGITAL by DICKINSON
also REMOTE RECORDING
9 Westinghouse Plaza, Bloomfield, NJ 07003
(201) 429-8996

Owner: Frank H. Dickinson

Studio Manager: Fran DeLoe

Engineers: Frank H. Dickinson

Dimensions of Studios: 8' x 20'

Dimensions of Control Rooms: 12' x 8'

Tape Recorders: Ampex MM1000 2 track Ampex ATR100 2 track Ampex AG44 C 4 track Ampex V 11 AS 4 track multi-reel transport system IV 11 CB 20 11 track video tape deck PDS

Mixing Consoles: Q 111 F 111 modular 16 in x 4 out

Monitor Amplifiers: Q 111 F 111 100W

Monitor Speakers: JHF Time Aligned

Echo, Reverb, and Delay Systems: Lexicon 114 AKG BX 20 Eventide DDL 1245

Other Outboard Equipment: Passive equalizer, max 40 db compression limiter, vocoder, compressor/limiter, 201, Eventide Omnia, PMS 1

Microphones: AKG Sony Altec Sennheiser and other

Instruments Available: Steinway grand Fender Rhodes synthesizer

Rates: \$100 per hour track. Block rates available. On premises 24 hour service available upon request as well as remote rates
Extras: Top complete VCI TASCAM digital audio system is available as a track out premises. Direct or max. town recording facilities available to remote either at other studios or for "live" location recording and mastering. All types of location recording from analog to digital, classical, to rock & roll. Top talents.
Direction: Make available as soon as possible, multi-track, digital facilities on premises and remote

•••• DIMENSION SOUND STUDIOS INC
368 Centre St., Jamaica Plains, MA 02130
(617) 522-3100
Owner: Thom Foley, Dave Hill
Studio Manager: Ga. Perry

•••• DIMENSIONAL SOUND, INC.
301 West 54th St., New York, NY 10019
(212) 247-6010
Owner: Bill Shapiro
Studio Manager: Herb Sokolstein

•••• EASTERN ARTISTS RECORDING STUDIO
also REMOTE RECORDING
36 Meadow St., E. Orange, NJ 07017
(201) 673-5680
Owner: William Guaranté
Studio Manager: Jane Miller

•••• EASTERN SOUND AND VIDEO STUDIOS
also REMOTE RECORDING
11 Messina Ave., Methuen, MA 01844
(617) 685-1832
Owner: Pat Costa

Studio Manager: Pat Costa

Engineers: P. Costa, H. Messina, K. Moustafa

Dimensions of Studios: 20' x 40'

Dimensions of Control Rooms: 20' x 15'

Tape Recorders: Ampex MM1200 24 track, Ampex ATR100 2 track, Ampex 4400 2 track

Mixing Consoles: Synco 2824 28 in x 24 out

Monitor Amplifiers: Crown

Monitor Speakers: Westlake, Alter

Echo, Reverb, & Delay Systems: Lexicon 224 digital reverb, Audion plate, Eventide Harmonizer, Lexicon Prime Time, Loti DDL, Deltalab DL4

Other Outboard Equipment: Kepex Gain Brain UREI LA 4As and 4As Omni Craft noise gates Trident limiters and compressors, Eventide phaser, Neptune 1/3 octave graphic EQ, UREI graphic EQ, 32 channels dbx EXR Exciter, Ashly parametrics
Microphones: Neumann U87s and 47s, F V RE15, RE20s 665 AKG 451, 414, D24E, C60, Sennheiser 421, 441, Crown P2M, Shure SM85, 57, 58, Norelco C61

Instruments Available: Yamaha grand, Fender Rhodes Prophet 5, Prophet 10

Video Equipment & Services: Complete professional video editing and production facilities in studio or on location. 2 or 3 cameras, 16 mm, 35 mm, SMPTE time code, Dolby stereo, electronic video editing

Rates: Negotiable



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New York, NY

•••• ELECTRIC LADY STUDIOS
52 W 8th St., New York, NY 10011
(212) 677-4700
Owner: Alan Searcy
Studio Manager: Ed Kaplan

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15 Bridge Rd., Weston, CT 06883
(203) 226-4200
Owner: Don Elliott
Studio Manager: Liz Gallant

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Studio Manager: Ray Volpe

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151 W. 46th St., New York, NY 10036
(212) 541-6072 and (212) 869-2666
Owner: Raul Alarcon
Studio Manager: Raul Alarcon

•••• EVERGREEN RECORDING
215 W. 91st St., New York, NY 10024
(212) 362-7840

Owner: Joel Greenbaum
Engineers: Ron Steven Chief Eng. independents
Dimensions of Studios: Main recording area glass enclosed drum room two isolation booths total 500 sq ft
Dimensions of Control Rooms: 200 sq ft
Tape Recorders: Ampex MM1200 24 track Otari MTR10 2 track Ampex Inovonics 2 track Technics 1500 2 track Pioneer RT1050 1/2 track
Mixing Consoles: Harrison MR4 28 in x 24 out
Monitor Amplifiers: Yamaha P2200
Monitor Speakers: UREI 811s, Burhoes Crimsons, Auratones
Echo, Reverb, & Delay Systems: Echoplex II MIC MIX XI 405 Ursa Major Space Station, MXR DDL Eventide Harmonizer
Other Outboard Equipment: Kepex Ashly comp limiters dbx 160s, 161s
Microphones: AKG 414s 451s Neumann UH7s, Sennheiser 421s 441s Shure SM57s 58s, Crown PZMs
Instruments Available: Complete Slingerland drum kit (wood snare or Ludwig metal snare) Boogie Fender Ampex, Polytone amps grand piano Rhodes Yamaha elect. piano and organ string synth
Rates: Call for info

•••• FEDCO AUDIO LABS
strictly REMOTE RECORDING
310 Greenwood Ave., E. Providence, RI 02916
(401) 272-3157

Owner: Lyle Fain
Studio Manager: Jeff Hustis
Extras: Dental capability as well as complete video intertia can handle 56 simultaneous mike inputs
Direction: Since Fedco's creation in 1969, we have recorded virtually every important act in the industry. Credits include: Holland, Stones, Bob Dylan, Peter Frampton (Comes Alive), The Doors, The Band, Frank Sinatra, Miles Davis, Eagles, Springfield, Zappa, Boston, Stevie Wonder, Joni Mitchell, Bo Diddley, Paul Simon, Hall & Oates, Chicago, Fleetwood Mac, Elton John, Jeff Beck.

•••• FLEETWOOD RECORDING STUDIOS, INC.
321 Revere St., Revere, MA 02151
(617) 284-8700
Owner: Robert Djevalkan
Studio Manager: Robert Djevalkan



FUNKY RECORDS
Rochester, NY

•••• FUNKY RECORDS
244 Lyell, Rochester, NY 14608
(716) 458-5610
Owner: Boyd McCoy
Studio Manager: Boyd McCoy
Engineers: Boyd McCoy Vern Norwood
Dimensions of Studios: 32 x 18 control room 14 x 10 drum room 14 x 14, bass room 8 x 18
Dimensions of Control Rooms: 18 x 20
Tape Recorders: (2) ACES TH24 24 track, ACES TH2 15 1/2 track, TEAC 14 track, (2) TEAC cassette players
Mixing Consoles: ACES ML, 48 in x 48 out with two master mix downs with full patchbay

MAY 1983

Dimensions of Control Rooms: A 15 x 10 B 14 x 14 C 10 x 14 lounge control room 10 x 14
Tape Recorders: Studer A800s B67s and A80s 1/2 and 2 track stereo capabilities in all rooms

continued on next page

Monitor Amplifiers: (4) ACES 150 watts stereo
Monitor Speakers: JBL 4311s Altec 604Es, Auratone Super Os
Echo, Reverb, & Delay Systems: (2) ACES spring reverb MXR full memory delay Lexicon Super Prime Time
Other Outboard Equipment: Ashly compressor limiters (2) EXR Exciters (4) ACES EQs (2 stereo 15-band, 2 27-band), Omni-craft noise gates Ashly limiters
Microphones: AKG 414s 451s E.V. RE20 Shure SM57s SM58s Sennheiser 421 (2) Milab LC25s (2) Milab DC63s
Instruments Available: Grand piano Rhodes piano synthesizer Bass guitar
Video Equipment & Services: Omni Q
Rates: Introductory rates \$50 16 track \$65 24 track \$95 48 track \$125 48 track
Extras: This is the world's first complete lead lined studio. We are the only 48 track studio in western New York state.

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(203) 528-9009
Owner: Douglas W. Clark
Studio Manager: William Pauluh

•••• CHRIS GATELY AUDIO SERVICES
also REMOTE RECORDING
P.O. Box 526, Bryn Mawr, PA 19010
(215) 525-3605

•••• GOLDEN HORN RECORDING STUDIO
97 West 2nd St., Freeport, NY 11520
(516) 623-1672
Owner: M. Sami Uckan
Studio Manager: Elizabeth Uckan
Engineers: Prof Uckan Oz Aykan Eda Bone Uckan Jimmy (P.H.) Kennitt
Dimensions of Studios: 15 x 25
Dimensions of Control Rooms: 10 x 10
Tape Recorders: MCI IH24 w Autolocator III 24 track Scully 240 HB 8 track Sony 854 4 1/4 track MCI IH110 2 track Scully 160 1/2 track
Mixing Consoles: MCI IH4 24 24
Monitor Amplifiers: Crown DC 300s DC 150s DC 60s (2) M-la 160 275s
Monitor Speakers: Aesx JBL KEH and lots of Auratones
Echo, Reverb, & Delay Systems: EMT 140 stereo plate echo Tapes reverb Bussel echo Digital Arousecomputer Lexicon multi delay
Other Outboard Equipment: Allison Kepexes and Gain Brain Eventide limiter, many limiters compressors and EQs
Microphones: Wide selection available Neumann AKG E.V. Smae Crown PZM etc
Instruments Available: Gulbransen piano double bass Slingerland or arms handdrum Zilkhan cymbals imported from Turkey
Video Equipment & Services: VHS video recording available on request with in house services. * No extra charge *
Rates: 24 track \$65/hr 8 track \$45/hr Creatively complete located on the scenic harbor in Freeport, NY

•••• GRAMAVISION STUDIO
260 West Broadway, New York, NY 10013
(212) 226-7057
Owner: Jonathan Rose
Studio Manager: Okona Galthrop

•••• GREENE STREET RECORDING
112 Greene Street, New York, NY 10012
(212) 226-4278
Owner: Steve Lave Billy Arnell
Studio Manager: Michael Borinson
Engineers: Rocky Hill Kim Munkesi Jim Jordan Frank Sculino
Dimensions of Studios: 20 x 34
Dimensions of Control Rooms: 20 x 25
Tape Recorders: MCI IH114 4 and 16 track Studer A80 2 track Ampex 4400 2 track mono Ampex 44 K 4 track
Mixing Consoles: Trident TSM 28 in x 24 out includes Allison Edatex Automation
Monitor Amplifiers: Crown PSA2 BGV 600
Monitor Speakers: (2) UREI (2) JBL (2) Auratone
Echo, Reverb, and Delay Systems: EMT 140Ts AKG BX20E Lexicon 122S Lexicon Prime Time Eventide 1745A Eventide 910 Harmonizer, tape delay with vari speeds, Orban/Parasound reverb
Other Outboard Equipment: Orban 621B parametric EQ Audionics PEQ H2 EQ Neve limiter compressors (4), Gain Brain (4) Kepex (4) Roger Mayer noise gate, ADH Complex compressor limiter expander (2), Eventide Phaser and Harmonizer UREI 1176 LN compressor/limiter (2) UREI 566 filter set Scamp compressors (2) noise gates ADH Vocal Stressor Marshall Time Modulator Ursa Major Space Station (2) Scamp Pan modules
Microphones: Neumann UH7s UH9 KM86s, U47 tube, KM56s, AKG 414s, 452s, C34, Shure SM57s, Sennheiser 421s 441s, AKG D202Es Altec 21s, Schoeps tube MK2s, Sony ECM50, assorted dynamics
Instruments Available: Steinway concert grand Hammond B3 w Leslie, Rhodes, Yamaha organ/synth, Hohner planet, AHP Soloist and Explorer, drum kit, assorted percussion, congas
Rates: Upon request

MAY 1983



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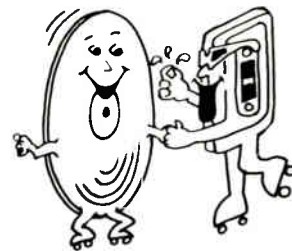
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**** GRENADIER
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 (716) 275-3821, 424-6788
 Owner: Tim Green
 Studio Manager: Tim Green

**** GRENADIER

Mixing Consoles: Neve 806H modified 40 in x 30 out Harrison 4032 40 in x 30 out
 Monitor Amplifiers: McIntosh 2500s Arec 9440s H&H
 Monitor Speakers: JBL HI 15As
 Echo, Reverb, and Delay Systems: EMT 14 AKG Gramphon Eventide DDL Lexicon Prime Time Lexicon 224
 Other Outboard Equipment: Philco EQ UREI limiters Neve limiters Eventide Phasers and Flangers MXH phasers and flangers Kapek Gain Brain Eventide Harmonizers Marshall Time Modulator Trident limiters too much to list please call for more info
 Microphones: Neumann AKJ Shure Sennheiser F.V. Boyer Pressure Zone Jedd tube Neumann mixer phones
 Instruments Available: Vibes xylophone Celeste Hammond organ Fender Bb electric guitar
 Rates: Upon request



MINOT SOUND
 White Plains, NY

**** MINOT SOUND
 19 South Broadway, White Plains, NY 10601
 (914) 428-8080, (212) 828-1216
 Owner: Ron Curran
 Studio Manager: Thom Camillo
 Engineers: Ron Curran Ray Barium Bruce Robinson Wayne Warrisco
 Dimensions of Studios: 40 x 25
 Dimensions of Control Rooms: 2 x 18
 Tape Recorders: Studer A80 MkIII 24 track MCI JH16 24 track MCI JH11B 24 track 1/2 mix Scully 2 track Ampex 4 track
 Mixing Consoles: Harrison 3024 20 in x 4 out
 Monitor Amplifiers: HH HA 508 BGW 100 2 BGW 750C BGW 750C
 Monitor Speakers: B&B 1 Stereo Sound Cubes JBL L100 Yamaha NS10M
 Echo, Reverb, and Delay Systems: EMI 14 stereo AKG BX 20F Eventide Harmonizer Cooper Time Cube Lexicon Prime Time Scully DDF 2000 Digital reverb or delay Eventide SP2010 AKG BX 0F
 Other Outboard Equipment: Kapek Pulse and other phasers E.J. Orban APF DePhaser limiter Swamp Box cut span UREI dbx API limiters dual compressor VSO VTR GTX Slave
 Microphones: Neumann U87 KM84 EM89 U41 Sennheiser 401 S100 SM57 AKG C41451 F.V. plus many others
 Instruments Available: Harmonizer Slawway clavichord Hammond Electric and Marshall amps plus amp drums on his selection plus music for string OBX and horn sections
 Rates: \$3.5/hr. Block booking rates available
 Extras: Video library full service in studio production services in studio and on location studio now small 8 track studio
 Direction: Bruce Michael Frank Warner Bros. Starpoint Polygram Ben James CBS Harvey Mason (Arise) MARZ EMI Dune Exposure (Capital) Gold Coast Crack The Sky (Liberty) Rick James (Capricorn) Roy Ayers Poygram The Miracles (Motown) Eric Burdon and the Animals (Capricorn) Funky Bunch (Capricorn) Tony White (Elektra) Rick James (Capricorn) Bo Diddley (Motown) Earl Klemm (Capricorn) James Brown (Capricorn) Miller WB

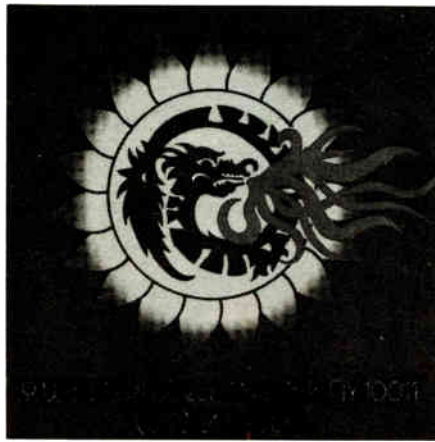
**** THE MIXING LAB, INC
 also REMOTE RECORDING
 100 Bellevue St., Newton, MA 02158
 (617) 964-8010
 Owner: John Noy
 Studio Manager: John Noy
 Engineers: Tom Noy Fred Matus David Svard independent
 Dimensions of Studios: 10 x 10
 Dimensions of Control Rooms: 8 x 10
 Tape Recorders: MCI JH114 24 track Studer 2 track MCI transformerless 2 track Ampex 2 tracks
 Mixing Consoles: Custom fully parametric EQ w/group faders UCA's patch points available everywhere
 Monitor Amplifiers: McIntosh
 Monitor Speakers: B&B Bevis 805 910 Phillips 02 ADS 910

24

tracks

Auratonex many others
 Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb w/vocal plate & ax 20 Lexicon digital delay
 Other Outboard Equipment: UREI limiters Kapek & Gain Brain Marshall Time Modular Avraban De-esser Flanger phasers & Lexicon Prime Times
 Microphones: Neumann AKG Schoeps
 Instruments Available: Multiple
 Rates: \$7.50-\$100 per hour

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 Studio Manager: George Hehr



M.S.P. MUSIC (Formerly SUNDRAGON)
 New York, NY

**** M.S.P. MUSIC N.Y.C.
 (formerly Sundragon Productions)
 476 Broadway, New York, NY 10013
 (212) 243-9000
 Owner: Neil Linton
 Engineers: Neil Linton Barry Pollock Ken Fink
 Dimensions of Studios: 20 x 20
 Dimensions of Control Rooms: 10 x 6
 Tape Recorders: Studer A80 VII 24 in 1/2 track Studer A80 VII 2 track Studer A80 2 track Studer A7 2 track
 Mixing Consoles: Trident 2400 20 in x 24 out
 Monitor Amplifiers: Studer Crown DC 300A Crown DC 300B
 Monitor Speakers: JBL L15s Tannoy A-Systems B&B AFS Bevis Bose/Carver 1511 monitors
 Echo, Reverb, and Delay Systems: EMT 14 stereo AKG BX 20F Lexicon 224 digital reverb
 Other Outboard Equipment: MXB DDL Phase EQ Filter Master Reverb UREI limiters DePhaser limiter 24 dbx compressor dbx Stereo Compressor limiter EQ API Phase The Pipe Dolly A 1/2 track Studer Eventide H949 Harmonizer
 Microphones: Neumann U87 U89 U89 AK C414 D11 Sennheiser MD421 and many
 Instruments Available: Harmonizer Slawway clavichord Hammond Electric and Marshall amps plus amp drums on his selection plus music for string OBX and horn sections
 Rates: \$11/hr. (incl. tax)

**** MUSIC DESIGNERS
 241 White Pond Rd., Hudson, MA 01749
 (617) 890-8787
 Owner: Jeff Gilman
 Studio Manager: Jeff Gilman

**** NATIONAL RECORDING STUDIOS, INC.
 also REMOTE RECORDING
 460 W. 42nd St., 232 E. 46th St., 228 W. 47th St., NYC
 41-41 Cresent St., Long Island City, NY
 (212) 279-2000
 Owner: Hal Linderoth Linda Salzman
 Studio Manager: Jeff Pastorek
 Engineers: 30 in studio
 Dimensions of Studios: 12 studios from one you're size to full sized big 6 edit rooms

Dimensions of Studios: A 20 x 10 x 10
 Dimensions of Control Rooms: A 10 x 10 x 10
 Tape Recorders: Studer A80 24 track 20 Studer A80 14 2 track Studer A80 14 2 track Ampex A1000 14 and 2 track Ampex 4400 14 2 track
 Mixing Consoles: Trident Mechanical TSM 40 in x 24 out
 Monitor Amplifiers: Crown DC 300A Crown DC 300B
 Monitor Speakers: B&B Bevis 805 910 Phillips 02 ADS 910

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 Doraville, GA 30340

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Entertainment Technology (804) 355-6837
 3 S. Brunswick St., Richmond, VA 23220

Washington

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 17517 15th NE, Seattle, WA 98155

Wisconsin

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 4644 S. 76th St., Milwaukee, WI 53220

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**** ERAS
226 East 54th St., New York, NY 10022
(212) 832-8020
Owner: Boris Midney
Studio Manager: Ray Volpe

**** EUROSOUND STUDIOS
151 W. 46th St., New York, NY 10036
(212) 541-6072 and (212) 869-2666
Owner: Raul Alarcon
Studio Manager: Raul Alarcon

**** EVERGREEN RECORDING
215 W. 91st St., New York, NY 10024
(212) 362-7840
Owner: Joel Greenbaum
Engineers: Rob Steven, Chief Eng. independents
Dimensions of Studios: Main recording area glass enclosed drum room two isolation booths total 500 sq ft
Dimensions of Control Rooms: 200 sq ft
Tape Recorders: Ampex MM1200 24 track, Otari MTR10 2 track, Ampex Inovonics 2 track, Technics 1500 2 track Pioneer RT1050 2 track
Mixing Consoles: Harrison MR3 2B in x 24 out
Monitor Amplifiers: Yamaha P2200
Monitor Speakers: UREI 811s, Burho Crimsons Auratone Echo, Reverb, & Delay Systems: Echoplex E, MIC MIX XI, 405 Ursa Major Space Station, MXR DDL, Eventide Harmonizer
Other Outboard Equipment: Kepelex, Ashly comp/limiters, dbx 160s, 161s
Microphones: AKG 414s, 451s, Neumann U87s, Sennheiser 421s, 441s, Shure SM57s, 58s, Crown PZMs
Instruments Available: Complete Slingerland drum kit (wood snare or Ludwig metal snare), Boogie Fender, Ampex, Polytone amps, grand piano, Rhodes, Yamaha elect piano and organ, string synth
Rates: Call for info

**** FEDCO AUDIO LABS
strictly REMOTE RECORDING
310 Greenwood Ave., E. Providence, RI 02916
(401) 272-3157
Owner: Lyle Fan
Studio Manager: Jeff Eustis
Extras: Digital capability as well as complete video interface. Can handle 56 simultaneous mike inputs
Direction: Since Fedco's creation in 1969, we have recorded virtually every important act in the industry. Credits include Hollins Stones, Bob Dylan, Peter Frampton (Comes Alive), the Doors, the Band, Frank Sinatra, Miles Davis, Eagles, Springsteen, Zappa, Boston, Steve Wonder, Joni Mitchell, Rod Stewart, Paul Simon, Hall & Oates, Chicago, Fleetwood Mac, Elton John, Jeff Beck.

**** FLEETWOOD RECORDING STUDIOS, INC.
321 Revere St., Revere, MA 02151
(617) 284-8700
Owner: Robert Djevalikian
Studio Manager: Robert Djevalikian



FUNKY RECORDS
Rochester, NY

**** FUNKY RECORDS
244 Lyell, Rochester, NY 14608
(716) 458-5610
Owner: Boyd McCoy
Studio Manager: Boyd McCoy
Engineers: Boyd McCoy, Vern Norwood
Dimensions of Studios: 32 x 18, guitar room 14 x 10, drum room 14 x 14, bass room: 8 x 18
Dimensions of Control Rooms: 18 x 20
Tape Recorders: (2) ACES TR24 24 track, ACES TR2 1/2" 2 track, TEAC 14 track, (2) TEAC cassette players
Mixing Consoles: ACES ML, 48 in x 48 out with two master mix downs with full patchbay

Monitor Amplifiers: 141 ACES 150 watts stereo
Monitor Speakers: JBL 4311s, Altec 604Es, Auratone Super Qs
Echo, Reverb, & Delay Systems: (2) ACES spring reverb, MXR full memory delay, Lexicon Super Prime Time
Other Outboard Equipment: Ashly compressor/limiters, (2) EXR Exciters, (4) ACES EQs (2 stereo, 15 band, 2 27-band), Omnicraft noise gates, Ashly limiters
Microphones: AKG 414s, 451s, E.V. RE20, Shure SM57s, SM58s, Sennheiser 421, (2) Milab LC 25s, (2) Milab DC 63s
Instruments Available: Grand piano, Rhodes piano, synthesizer, bass guitar
Video Equipment & Services: Omni Q
Rates: Introductory rates \$50 16 track, \$65 24 track, \$95 32 track, \$125 48 track
Extras: This is the world's first complete lead lined studio. We are the only 48 track studio in western New York state

**** THE GALLERY RECORDING STUDIOS
also REMOTE RECORDING
87 Church St., East Hartford, CT 06108
(203) 528-9009
Owner: Douglas W. Clark
Studio Manager: William Paulish

**** CHRIS GATELY AUDIO SERVICES
also REMOTE RECORDING
P.O. Box 526, Bryn Mawr, PA 19010
(215) 525-3605

**** GOLDEN HORN RECORDING STUDIO
97 West 2nd St., Freeport, NY 11520
(516) 623-1672
Owner: M. Sami Uekan
Studio Manager: Elizabeth Uekan
Engineers: Erol Uekan, Oya Aykan, Eda (Bone) Uekan, Jimmy P.P.R. Kenniff
Dimensions of Studios: 15 x 25
Dimensions of Control Rooms: 10 x 10
Tape Recorders: MCI JH24 w. Autolocator III 24 track, Scully 280 8 track, Sony 854 4 track, MCI JH110 1 track, Scully 280 2 track
Mixing Consoles: MCI JH24 24
Monitor Amplifiers: Crown DC 400s, DC 1150s, DC 60s (2) Melnosh 275s
Monitor Speakers: Altec, JBL, KH and lots of Auratone
Echo, Reverb, & Delay Systems: EMI 240 stereo plate echo, Tapco reverb, Binson echo, Digital Lab Acoustic Computer, Lexicon digital delay
Other Outboard Equipment: Allison Kepelex and Gain Brain, Eventide flanger, many limiter/compressors and EQs
Microphones: Wide selection available: Neumann, AKG, E.V., Shure, Crown PZM, etc.
Instruments Available: Gulbranson piano, double bass Slingerland drums, handmade Zildjian cymbals imported from Turkey
Video Equipment & Services: VHS video recording available on request with in-house services. * No extra charge.
Rates: 24 track \$65/hr, 8 track \$45/hr. Creatively complete located on the scenic harbor in Freeport, NY

**** GRAMAVISION STUDIO
260 West Broadway, New York, NY 10013
(212) 226-7057
Owner: Jonathan Rose
Studio Manager: Okena Calthorpe

**** GREENE STREET RECORDING
112 Greene Street, New York, NY 10012
(212) 226-4278
Owner: Steve Loeb, Billy Arnold
Studio Manager: Michael Rubinsten
Engineers: Rocky Hui, Kurt Munkacs, Jim Jordan, Frank Shtilino
Dimensions of Studios: 20 x 14
Dimensions of Control Rooms: 20 x 25
Tape Recorders: MCI JH114 24 and 16 track, Studer A80 2 track, Ampex 440C 2 track mono, Ampex 440C 4 track
Mixing Consoles: Trident TSM 2B in x 24 out includes Allison Faqex Automaton
Monitor Amplifiers: Crown PSA2, BGV 600
Monitor Speakers: (2) UREI, (2) JBL, (2) Auratone
Echo, Reverb, and Delay Systems: EMT 140Ts, AKG BX20F, Lexicon 122S, Lexicon Prime Time, Eventide 1745A, Eventide 910 Harmonizer, tape delay with var speeds, Orban/Parasound reverb
Other Outboard Equipment: Orban 621B parametric EQ, Audiotronics PEQ 82 EQ, Neve limiter/compressors (4), Gain Brain (4), Kepelex (4), Roger Mayer noise gate, ADH Complex compressor/limiter/expander (2), Eventide Phaser and Harmonizer, UREI 1176 LN compressor/limiter (2), UREI 566 filter set, Scamp compressors (2), noise gates, ADR Vocal Stressor, Marshall Time Modulator, Ursa Major Space Station, (2) Scamp Pan modules
Microphones: Neumann U87s, U89, KM86s, U47 tube, KM56s, AKG 414s, 452s, C34, Shure SM53s, Sennheiser 421s, 441s, AKG D202Es, Altec 21s, Schoeps tube MK2s, Sony ECM50, assorted dynamics
Instruments Available: Steinway concert grand, Hammond B-3 w/Leslie, Rhodes, Yamaha organ/synth, Hohner pianet, ARP Solist and Explorer, drum kit assorted percussion, congas
Rates: Upon request



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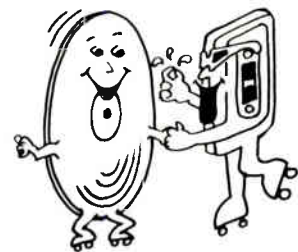
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•••• LONG VIEW FARM
 also REMOTE RECORDING
 Stoddard Road, No. Brookfield, MA 01535
 (617) 867-7662, 867-7050, (800) 225-9055
 Owner: Gil Murkle
 Studio Manager: Andrea Murkle

•••• MARK STUDIOS
 also REMOTE RECORDING
 10815 Bodine Road, Clarence, NY 14031
 (716) 759-2600
 Owner: Vincent S. Morette
 Studio Manager: David M. Bellanca
 Engineers: David Bellanca Larry Swist Vince Morette Chuck
 Cavanaugh Mark Mekker Jim Albert Chuck Madden
 Tape Recorders: Otari MTR40 24 track, Ampex ATR102 2
 track, Ampex AG440B 4 track Otari MTR10 2 track, Studer
 ARO 2 track
 Mixing Consoles: Amek 3000M 16 in. x 24 out. Audionics
 110B 14 in. x 24 out.
 Monitor Amplifiers: Crown PSA2 UREI 650C
 Monitor Speakers: UREI H13 H11 miscellaneous small
 speakers
 Echo, Reverb, & Delay Systems: Echoplex II, BX 20E, BX-10E,
 EMT 240
 Microphones: AKG 4, 4EB P48 Beyer 260 160, 69, 500, 400,
 AKG C12 Shure SM57 58 59 81 Sennheiser MD421 402
 Rates: Package rates available for remote and studio use no clock
 watching is needed

•••• M&I RECORDING ENTERPRISES LTD.
 630 Ninth Ave., New York, NY 10036
 (212) 582-0210
 Owner: Mitch Yuspeh Ira Yuspeh
 Studio Manager: Steve Hasday

•••• MCCLEAR PLACE RECORDING & MASTERING
 STUDIOS
 225 Mutual St., Toronto, Canada M5B2B4
 (416) 977-9740
 Owner: Bob Richards Phil Sheridan
 Studio Manager: Bob Richards Phil Sheridan

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For further information
 contact Jim Bazin
 (617) 646-3950

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MASTER SOUND PRODUCTIONS
 recording studios

MASTER SOUND PRODUCTIONS
 Franklin Square, NY

•••• MASTER SOUND PRODUCTIONS INC.
 921 Hempstead Tpke., Franklin Square, L.I., NY 11010
 (516) 354-3374
 Owner: Ben Rizzi Maxine Chren
 Studio Manager: Maxine Chren
 Tape Recorders: Ampex ATR124 48 track recording
 Mixing Consoles: Trident TSM w/80 input mixing capacity
 Monitor Speakers: JBL Broadcast
 Echo, Reverb, & Delay Systems: EMT 251 digital reverb
 Video Equipment & Services: SMPTE BTX Shadow cypher,
 Sony 4" video editing video copies, high speed and cassette
 duplication
 Rates: Call for rates

•••• MEDIASOUND INC.
 311 W. 57th St., New York, NY 10019
 (212) 765-4700
 Owner: Joel Rosenman John Roberts
 Studio Manager: Susan Ploner
 Engineers: Fred Christie Alex Head Harvey Goldbera Doug
 Epstein Mike Barriero Michael Brauer Carl Beatty Lincoln
 Clapp Director of Technical Services Pete Maiorino
 Dimensions of Studios: A 30 x 50 (former church) B 20 x 20,
 C 10 x 15, lounge 15 x 15
 Dimensions of Control Rooms: A 15 x 10, B 14 x 14 C 10 x
 14 lounge control room 10 x 14
 Tape Recorders: Studer A600s B67s and A80s and 1 track
 stereo capabilities in all rooms

continued on next page

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Mixing Consoles: Neve R068 modified 42 in x 32 out, Harrison 4032 42 in x 32 out
Monitor Amplifiers: McIntosh 2500s; Altec 9440s; H&H
Monitor Speakers: UREI 813As
Echo, Reverb, and Delay Systems: EMT 140 AKG Grampson Eventide DDL Lexicon Prime Time Lexicon 224
Other Outboard Equipment: Pultec EQ, UREI limiters, Neve limiters, Eventide Phasers and Flangers MXR phasers and flangers, Kepex Gun Brain Eventide Harmonizer, Marshall Time Modulators, Trident limiters. For much more, please call for more info.
Microphones: Neumann AKG Sennheiser E.V. Beyers Pressure Zone, old tube Neumann microphones
Instruments Available: Vibes, xylophone, Celeste, Hammond organ, Fender electric claviers
Rates: Upon request



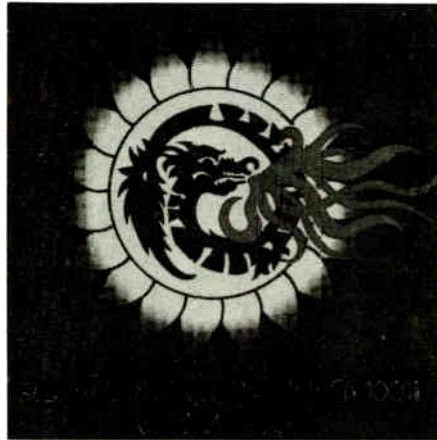
MINOT SOUND
White Plains, NY

•••• MINOT SOUND
 19 South Broadway, White Plains, NY 10601
 (914) 428-8080, (212) 828-1216
Owner: Ron Carrico
Studio Manager: Innon Cimillo
Engineers: Ron Carrico, Ray Bardani, Bruce Robbins, Wayne Wiatrowski
Dimensions of Studios: 40 x 25
Dimensions of Control Rooms: 12 x 18
Tape Recorders: Studer A80 MkIII, 4 track; MCI JH16 24 track (2) MCI JH110B 2 track 1/2" max; Sully 2 track; Ampex 2 track
Mixing Consoles: Harrison 4624 48 in x 24 out
Monitor Amplifiers: HH TPA 500, BGW 100, (2) BGW 7500, BGW 7500C
Monitor Speakers: Bio Reds, Sennheiser Sound Clones, JBL L100, Yamaha NS10M
Echo, Reverb, and Delay Systems: EMT 140 stereo, AKG BX 20E, Eventide Harmonizer, Cooper Time Cube, Lexicon Prime Time, Sony DHE 2000 Digital reverb, Eventide SP2016, AKG BX20E
Other Outboard Equipment: Kepex Pultec and other parametric EQ's (Orban), API EQ, phaser, dancer, Stamp Back auto pan, UREI dbx API limiters, digital metronome, VSO VTR, RTX Shadow
Microphones: Neumann U87, KM84, KM86, U4, Sennheiser 4.1, Sennheiser SM57, AKG 414, 451, E.V. plus many others
Instruments Available: Rhoads Steady clavier, Hammond, Fender and Marshall amps, bass amp, drums, congas, vibes, timps, mace, perc, comp, OBX and other synthesizers
Rates: \$125 hr. Block booking rate available
Extras: Video library, full record & single production service, in-studio owned & run studio, 27' x 30' new small 8 track studio
Direction: Records: Michael Franks (Warner Bros.), Starpoint (Polygram), Bob James (CBS), Harvey Mason (Arista), MARZ (FMI), Double Exposure (Capitol Gold Coast), Crack The Sky (Decca), Rick Bowles (Polygram), Roy Ayers (Polygram), The Michael Franks project was mixed with the Mitsubishi PCM 2 track digital, Junior Polygram, Lenny White, Elektra, Rick James Presents Bobby Mc (Motown), Earl Klugh, Bob James (Capitol), Marcus Miller, WB

•••• THE MIXING LAB, INC
 also REMOTE RECORDING
 100 Bellevue St., Newton, MA 02158
 (617) 964-8010
Owner: John Nacy
Studio Manager: John Nacy
Engineers: John Nacy, Paul Mutsaers, Dancia Stein, independents
Dimensions of Studios: 10 x 10
Dimensions of Control Rooms: 18 x 19
Tape Recorders: MCI JH114 24 track, Studer 2 track, MCI transformerless 2 track, Ampex 2 tracks
Mixing Consoles: Custom fully parametric EQ w/group faders, UKA's patch points available everywhere
Monitor Amplifiers: McIntosh
Monitor Speakers: Bio Reds, 805 910, Phillips L1, ADS 910

Auratonex, many others
Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb w/vocal plate & dx-20, Lexicon digital delay
Other Outboard Equipment: UREI limiters, Kepex & Gun Brain, Marshall Time Modular, Aural and Deesser, Flanger phasers & Lexicon Prime Time
Microphones: Neumann AKG Schoepfer
Instruments Available: Multiple
Rates: \$125-\$185 per hour

•••• MOBILE RECORDERS LTD.
 REMOTE RECORDING
 Southbury, CT 06488
 (203) 264-2659
 Studio Manager: George B. Miller



M.S.P. MUSIC (Formerly SUNDRAgon)
New York, NY

•••• M.S.P. MUSIC NY CO
 (formerly Sundragon Productions)
 476 Broadway, New York, NY 10013
 (212) 243-9000
Owner: Neil Friedman
Engineers: Neil Friedman, David Follock, Bob Frank
Dimensions of Studios: 20 x 30
Dimensions of Control Rooms: 20 x 9
Tape Recorders: Studer A80 MkIII, 4 track, Studer A80 MkIII, 4 track, Studer A80 MkIII, 4 track, Studer A80 MkIII, 4 track
Mixing Consoles: Trident 2400, 24 x 24
Monitor Amplifiers: Studer, Crown, Wadley, Crown, Crown, Crown
Monitor Speakers: JBL L100, JBL Jimmy, Auratones, B06s, ADF, Beyer, Beyer, JBL, JBL, JBL
Echo, Reverb, and Delay Systems: EMT 140, AKG BX 20E, Lexicon 224, Lexicon 224
Other Outboard Equipment: MXR DDL, Pultec EQ, Beyer, Meyer, Neumann, UREI 1170 limiters, Trident limiters, 4 dbx passive filter, dbx Series 9000 rack, Oberheim parametric EQ, API Phase, Lex-Lex, Dolby A, 2 track, Studer, Eventide HF49 Harmonizer
Microphones: Neumann U87, UREI 813As, AKG C414, UREI 813As, UREI 813As, UREI 813As
Instruments Available: Blaesie 88, Steinway grand piano, Hammond F-1, Fender electric and bass amp, 441 drum kit, finest cables, M-1100, Full line of outboard and synthesizers by all manufacturers and Eurack. Multiple analog keyboard controllers for all equipment. Eurack CMD computer musical arrangement software with analog interface, printer and analog controller to play the keyboard by control instead of keyboard. Oberheim Synthesizer SCM in four voices. Also used computer controlled digital synthesizer, just for API and Oberheim controllers
Rates: Call for rates
Direction: This new facility has been designed specifically to cater to able film and TV music scoring needs. Full time staff and full time production. Complex with digital to analog synthesizers and computer music adjustment. For more info contact these people.

•••• MUSIC DESIGNERS
 241 White Pond Rd., Hudson, MA 01749
 (617) 890-8787
Owner: Jeff Gilman
Studio Manager: Jeff Gilman

•••• NATIONAL RECORDING STUDIOS, INC.
 also REMOTE RECORDING
 460 W. 42nd St., 232 E. 46th St., 228 W. 47th St., NYC 41-41 Crescent St., Long Island City, NY (212) 279-2000
Owner: John J. and Brenda K. Gilman
Studio Manager: Jeff Gilman
Engineers: 4 engineers
Dimensions of Studios: 17 studios from one voice size to full symphony 64 seat rooms



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 16055 Ventura Blvd., #1001, Encino, CA 91436
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Silverfish Audio (714) 744-8460
 760 N. Twin Oaks Valley Rd.
 San Marcos, CA 92069

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Electronic Sound Products (303) 597-9350
 3320 Chelton Loop South
 Colorado Springs, CO 80909

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Technical Audio Systems (404) 447-9211
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 Doraville, GA 30240

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Audio Hawaii (808) 533-2657
 866 Iwalei Rd., #230, Honolulu, HI 96817

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 3530 N. Lincoln Ave., Chicago, IL 60657

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Mercury Sound Systems (301) 297-9236
 5600 Spring St., Clinton, MD 20735

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Headwater Industries (313) 961-3196
 26000 Ford Rd., Dearborne Heights
 Detroit, MI 48127

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Dutchess Electronic Music (914) 471-4400
 328 Manchester Rd., Poughkeepsie, NY 12603
Audio Techniques (212) 586-5989
 1619 Broadway, New York, NY 10019

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 215 Bickett Blvd., Raleigh, NC 27608

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Gordon Light & Sound (803) 242-5140
 P.O. Box 3724, Greenville, SC 29608

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RMS Sound (503) 239-0352
 3235 SE 39th Ave., Portland, OR 97202

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Steed Audio (412) 728-1234
 1133 Pennsylvania Ave., Monaca, PA 15061

Virginia

Stage Sound (703) 981-0565
 1013 Campbell Ave. SE, Roanoke, VA 24015
Entertainment Technology (804) 355-6837
 3 S. Brunswick St., Richmond, VA 23220

Washington

RMS Sound (206) 362-0491
 17517 15th NE, Seattle, WA 98155

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MTS Royal Systems (414) 281-2093
 4644 S. 76th St., Milwaukee, WI 53220

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Acousticcomputer DDL2, tape delays

Other Outboard Equipment: UREI Limiters, (5) Kexep and (6) Gain Brains, (2) Orban parametric EQs, MXR doubler/flanger, Eventide Harmonizer

Microphones: Neumann U89 U87 U46, KM84, AKG 414 451EBs D244, Sennheiser 441s (5) 421s E-V RE20 Shure SM57s and 58s

Instruments Available: Yamaha grand piano, Sequential Circuits Prophet 5 Kora CX3, D6 Clavinet, Fender DynoMy Rhodes, Ludwig drums, Fender Twin, Music Man, and Marshall amplifiers
Video Equipment & Services: 24 track recording \$60/hr, 16 trk \$50/hr 8 track \$40/hr. Special rates (Mon thru Fri. before 6 p.m. only!) Also all day discount — 12 hrs of 24 track re-arranging and or mix for \$600, and 16 track recording and or mix for \$500 plus tape and expenses

**** SOUNDWORKS

254 W. 54th St., New York, NY 10019
(212) 247-3690

Owner: Charles Benant
Studio Manager: Karen White

**** SOUNSCAPE RECORDING STUDIO

also VIDEO RECORDING

756 Main Street, Farmingdale, NY 11735
(516) 694-6036

Owner: Bob Lessick
Engineers: Bob Lessick
Dimensions of Studios: 25 x 24
Dimensions of Control Rooms: 12 x 28
Tape Recorders: 3M M79 24 track Scully 280 2 track, Revox A700 with VSO 1/2 track and 1/4 track, Nakamichi 581 cassette deck
Mixing Consoles: APSI 3000 custom 24 in x 24 out
Monitor Amplifiers: McIntosh Yamaha
Monitor Speakers: Altec 604Es JBL 4313s Auratones
Echo, Reverb, and Delay Systems: AKG BX20, Eventide phaser flanger, Eventide 1745 Harmonizer, UREI 1176 compressor/limiter, dbx 160 compressor/limiter, Aphex Aural Exciter, ADA stereo delay line, British spring, Kexep Gain Brain (2) Loft delay

Other Outboard Equipment: Technics graphic EQ, all 24 track dbx noise reduction

Microphones: Neumann U87s, 47, AKG 451E, 414, 224E, Beyer 200, 500, Sennheiser 421, 441

Instruments Available: Portfolio of custom vintage guitars, basses and amplifiers, 6-1 Young Chango piano, Synetrix digital keyboard, Superluna drum, warranty trade-in

Rates: Available upon request



SPECTRUM RECORDERS
Lanesborough, MA

**** SPECTRUM RECORDERS

151 South Main St., Lanesborough, MA 01237
(413) 499-1818

Owner: Spectrum Recorders, Inc.
Studio Manager: Peter Seplow
Engineers: Peter Seplow, David Fowle
Dimensions of Studios: 25 x 40 x 15 plus vocal and drum booths
Dimensions of Control Rooms: 16 x 20
Tape Recorders: MCI JH 100 24, 24 track; Scully 280B, 2 track, Technics HS 1500, 2, 1/4 play track, Technics RS-M63 cassette, 3 head, TEAC 3340 4 track
Mixing Consoles: APSI 3000 32 in x 32 out w FET auto-mute and four band EQ on all inputs
Monitor Amplifiers: (2) Carver SAE Pioneer
Monitor Speakers: UREI Time Aligned, Altec 604-E Auratones
Echo, Reverb, and Delay Systems: Stereo plate chamber, Delta-Lab DL-2 Delay, Echo, Loft 440 & 450 delays, 224X available
Other Outboard Equipment: UREI limiters, dbx limiters, Gates, TNE
Microphones: Neumann, AKG, Sennheiser, Sony, Shure, E-V, RE20
Instruments Available: 1926 Heintzman grand piano, Synthesizers available at slight extra cost

24 track the Northeast

Video Equipment & Services: Wired for three camera video, Betamax or VHS

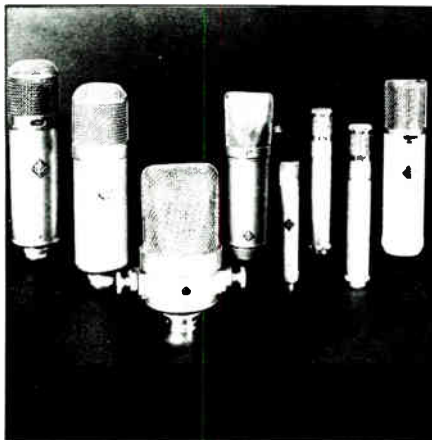
Rates: Rates are negotiable but always include use of lounge, shower, and kitchen

**** SQUIRES PRODUCTION

also REMOTE RECORDING
196 Maple Ave., White Plains, NY 10601
(914) 997-1603
Owner: Grea Squires

**** STARFLEET BLAIR INC.

also REMOTE RECORDING
2 Independence Court, Concord, MA 01742
(617) 369-3370
Owner: Sam Koppert, resident
Studio Manager: Steven Canavan



STARR RECORDING
Philadelphia, PA

**** STARR RECORDING

201 St. James Place, Philadelphia, PA 19106
(215) 925-5265
Owner: David Starobin
Studio Manager: Rose Layton
Engineers: David Starobin, John Shivers
Dimensions of Studios: 10'6" x 8'50" x 4'14m (34' x 27'4" x 14'7")
Dimensions of Control Rooms: 5'6" x 4'6" x 4'20m (16'7" x 14' x 10'6")
Tape Recorders: 3M M79, 4 track, Studer A80 2 track, Revox A700, 2 track, Ampex 440 2 track, Sony Quadradial 4 track, cassette machines by Nakamichi, Technics and TEAC, TapeCaster 700 HP cart machine 2 track
Mixing Consoles: MCI 416LM, 24 in x 24 out, Sound Workshop 1280EQ, 12 in x 8 out
Monitor Amplifiers: Crown PSA2, D150, (2) D60, IC 150, Marantz 510, 250 headphone, Bozak CMA50, McIntosh M60 (2), Pioneer QX949, Woodson
Monitor Speakers: Altec 604E Big Red w UREI crossover, JBL 4311, JBL L-100, Auratone, Utah, EPI, JVC, Beyer headphones, Audio Technica electrostatic headphones
Echo, Reverb, and Delay Systems: EMT 240 Gold Foil, AKG BX20 spring, live chamber, Lexicon Prime Time, Univox, Fender
Other Outboard Equipment: Eventide H949 Harmonizer, UREI digital metronome, Eventide Phaser, Orban dynamic balance controller (2) LA3A, (3) LA2A, (2) 1176, (4) 1175, (4) RCA BA-6A, (2) Gain Brain, (2) Kexep, (8) tube Pultec, (2) dbx 160, dbx 119, Boss Chorus, Morley pedals, Inovonics compressor
Microphones: Neumann M49, U47, U48, U67, KM56, U87s, KM84s, U47 FET, (2) Telefunken 251, AKG C28Bs, 451s, D12, C414s, C412s, D160s, D202s, Sennheiser 421s, 441s, MKE401, RCA KU3A, 77DXs, Sony C38, 22Ps, E-V RE10, RE11, RE15, RE20, Altec 633, Shure SM57s, JVC binaural, Beyer M260, M500
Instruments Available: Kora vocoder, Yamaha C-3 piano

Fender Rhodes, RMI piano, Hammond B-3 w/Leslie, Hohner Clavinet, ARP and EMS synthesizers, Wuritzer ivory piano, Fender, Peavey, Music Man amps, Tama drums, percussion instruments, Conn Spinnet Rinky-Tink, Gibson Mandobass, Fender White Neck bass, Ibanez guitar
Rates: \$60/hr 24 track, Demo rates available

**** E.J. STEWART, INC.

also REMOTE RECORDING
525 Mildred Ave., Primos, PA
(215) 626-6500
Owner: Hal Lipman
Studio Manager: Harry Hartman



STUDIO 7
Brooklyn Heights, NY

**** STUDIO 7

also REMOTE RECORDING
351 Jay St. 7th floor, Brooklyn Heights, NY 11201
(212) 624-1554
Owner: Norman A. Ellis
Studio Manager: Norman A. Ellis



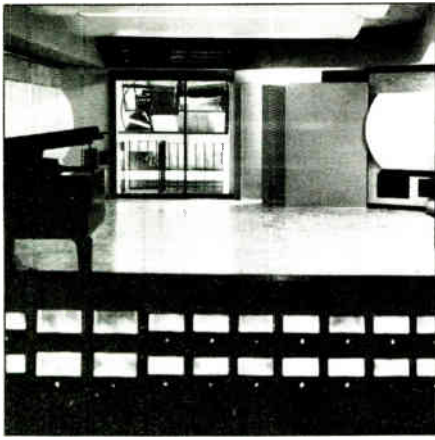
SUSQUEHANNA SOUND INC.
Northumberland, PA

**** SUSQUEHANNA SOUND INC.

also REMOTE RECORDING
48 A Street, Northumberland, PA 17857
(717) 473-9733
Owner: Bob Spangler
Studio Manager: Marjorie Spangler

**** SYNCRO SOUND STUDIOS

331 Newbury St., Boston, MA 02115
(617) 424-1062
Owner: Studio B1, Inc.
Studio Manager: Steve Berkowitz
Engineers: Walter Turbutt, Thom Moore, Andy Topeka
Dimensions of Studios: Main 32 x 20, iso booth 10 x 32
Dimensions of Control Rooms: 15 x 17
Tape Recorders: MCI JH636 24 track, (2) Ampex ATR 102 2 track; Studer B67 2 track; Tascam 80-8 8 track, (2) Technics RS85 cassettes
Mixing Consoles: MCI JH636, 36 in x 36 out, with 8 wild faders
Monitor Amplifiers: Yamaha P2200, BGW 750, Crown DC300, Crown 150, BGW 1C
Monitor Speakers: Control room UREI 838 Time Aligned, JBL 4311, Auratones, Studio JBL 4311



SYNCO SOUND
Boston, MA

Echo, Reverb, and Delay Systems: Lexicon 224X, EMT plate, AMS DMX 1540 S stereo, Lexicon Prime Time, Eventide H910 and 1745M Harmonizer/delay

Other Outboard Equipment: Eventide Flanger, Eventide Phaser, Marshall Time Modulator, dbx Dwr Easy, dbx 900 rack w/ noise gates, flanger, Over Easy & parametric. (4) Orban 622B EQ, Aphex 602, (1) Linn PEQA (7) 529, (2) LA2A, ADR F7e-4X R V dual Stereo, Eventide Harmonizer H910 & H949, (4) UREI 1176N limiters, (8) API 550 graphics, (3) Allison Gain Brains, (4) Allison Noise Gates, (2) Apex HVB compressor expander, Lexicon Prime Time, UREI Major Space Station

Microphones: (4) Neumann KM84s, (7) U87s, (2) U47s, (2) AKG 414s, (4) Sony C37F, D12, AKG (8) 421s, Sennheisers, (2) UREI 20s, Shure 57, 58s

Instruments Available: Linn Drum machine, Roland 808, all types of polyphonic synthesizers, GTR amplifiers, Yamaha grand piano, Hammond C3 w/ Leslie 122, Synclairs, Simmons drums, vintage Fender and Ampeg amplifiers

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Studio Manager: Nancy S. Goll

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(212) 355-1660
Owner: Teletronics
Studio Manager: Will Both

****** 39TH STREET MUSIC PRODUCTIONS, INC.**

266 W. 39th St., 17th floor, New York, NY 10018
(212) 840-3285
Owner: Michael Karp
Studio Manager: Geoffrey S. Ingalls

****** TIKI RECORDING STUDIOS, INC.**

186 Glen Cove Ave., Glen Cove, Long Island, NY 11542
(516) 671-4555
Owner: Fred Guarino
Studio Manager: Janet Guarino

Engineers: Mark Gaide, Fred Guarino, John Devlin

Dimensions of Studios: 40 x 25

Dimensions of Control Rooms: 20 x 15

Tape Recorders: 3M M79 24/16 track, 3M M79 2 track, Otari MTR10 2 track, TEAC 80 R 8 track, TEAC 25-2 2 track, Ampex 351 2 track, Ampex 350 1 track

Mixing Consoles: Trident TM, 24 in x 16 out, Tascam 10, 8 in x 4 out

Monitor Amplifiers: UREI, Crown, Dynaco
Monitor Speakers: UREI 813A, JBL 4311, Auratones

Echo, Reverb & Delay Systems: Echoplex, Lexicon, DDL
Other Outboard Equipment: Harmonizer, dbx, 160 comp.

Microphones: Neumann, AKG, Sennheiser, Beyer, E.V., Audio-Technica
Instruments Available: Yamaha concert grand piano, Fender Rhodes, Hammond M3 organ, Crummar string synthesizer, Slingerland drums, Fender Ampeg, Marshall Roland amps

Rates: \$25 - \$75/hr

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342 Lincoln St., Manchester, NH 03103
(603) 625-6300 or Boston (617) 523-4433
Owner: Kevin Tracey and Janet Tracey
Studio Manager: Janet Tracey
Engineers: Tom Chase, William Tracey
Dimensions of Studios: 24 x 34
Dimensions of Control Rooms: 16 x 16

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Tape Recorders: Otari MTR90 24 track w/10 memory capacity, Autolocator and full shuttle capability, auto rewind, etc., Otari 5050HF 1/4" full track mono, Otari 5050B 1/4" stereo, Otari MX5050B 1/2" track mastering tape machine, Eumig FL1000 cassette

Mixing Consoles: Sound Workshop Series 30, 26 in x 24 out, w/VCA sub-grouping

Monitor Amplifiers: Crown DC300 A2 (155 watts per channel), Crown D75 (40 watts per channel)

Monitor Speakers: UREI 811A Time Aligned studio monitors, ADS L520 Near Field Reference monitors, Auratones SC

Echo, Reverb & Delay Systems: Lexicon 224X digital reverb
Other Outboard Equipment: (2) Ashly model SC50 compressor/limiters, Orban 424A gated compressor/limiter w/de-esser, EXH Exciter, Psycho acoustic audio processor, Omnicrat GT4 noise gates (4)

Microphones: Yamaha 74" concert grand piano, Rhodes piano, synthesizers, full drum kit, tympani, conga drums, misc percussion equipment

Rates: Available on request

****** TRACKMASTER AUDIO, INC.**

1 Franklin Park North, Buffalo, NY 14202
(716) 886-6300
Owner: Mr. Alan C. Baumgardner
Studio Manager: Mr. Kim A. Ferullo

****** UNIQUE RECORDING**

701 Seventh Ave. 8th Floor, New York, NY 10036
(212) 921-1711
Owner: Robert Nathan, Joanne Georgio
Studio Manager: Joanne Georgio

Engineers: Michael Finlayson, Robert Nathan, Oscar Gerardo, Peter Robbins, Frank Heller, Tom Betz, Jay Burnett

Dimensions of Studios: Studio A: 30 x 15, Studio B: 12 x 9

Tape Recorders: Studio A: Otari MTR90 MKII 24 track w/24 channels Dolby A and Gotham TTM frame, Studer A80 1/2" 2 track, Ampex ATR 102 2 track w/Dolby 361s, Otari 5050B 2 track, Tascam 122 cassette deck, Studio B: Otari MTR 90 24 track, Otari 5050 R track, Otari 5050 2 track, Sony TCFX5C cassette deck

Mixing Consoles: Studio A: MCI JH606, 36 in x 24 out trans formerless automated console w/8 VCA groups/9 echo returns

Studio B: Sound Workshop Series 30B, 28 in x 24 out console
Monitor Amplifiers: Crown DC300s, DC150s, DC60s, Yamaha 2050s

Monitor Speakers: Studio A: UREI 813s, Yamaha NS10Ms, Auratones, JBL 4401s, ROIs, Studio B: Big Heeds, JBL 4313s, Auratones

Echo, Reverb, and Delay Systems: Studio A: Lexicon 224 (4/4), Ursula Major Space Station, Echoplex, (2) Lexicon PCM42s, (3) PCM 41s, Cooper Time Cube, 2 track tape slap, Studio B: Echoplex, BX 10, Lexicon Prime Time, (2) DeltaLab DL4s, 2 track tape slap

Other Outboard Equipment: Studio A: Eventide Harmonizer 910 & 949, Aphex 602A Aural Exciter, UREI LA4As, LA2As, dbx 165s 160s, dbx 904 gates, dbx de-esser, Pultec EQH2s (2) MXR dual 15 band EQs, MXR flanger/doubler, MXR flanger, MXR phaser, (4) Valley People Dynamites, (5) Kexpex 500s, (3) Gain Brain 700s, Orban 622B, Roland Vocoder SVC350, Studio B: Eventide Harmonizer 910, EXH Exciter, dbx 160s, UREI LA4s, (4) Valley People Dynamites, Ashly SC50s, Pultec EQU2s, (2) MXR dual 15 band EQs, (2) channels Audioarts 4 band parametrics

Microphones: Neumann U47 tubes, M49s, U57s, FET U87, U47, KM84s, AKG tube C12s, 414EBs, 452EBs, D12s, Sennheiser 421s 441s 406 ribbon, RCA 77DX, Heyer 164s 260s 500s, Crown I2M 30GPMs, Shure SM57s, SM58s, F V RE20s, Countryman FET and Sesscom direct boxes

Instruments Available: Studio A: Yamaha C46 grand, Fender Rhodes 73 suitcase, Sequential Circuits Prophet 5, OBXA 8 voice w/DSX poly sequencer, Minimoog, Roland Juno 60, ARP 2600, (2) Mesa Boogies, Roland Jazz Chorus amp, Fender twin tweed Bassman and Princeton reverb, Marshall 50 watt Slingerland drums, acoustic JBL bass amp, full percussion kit, Studio B: Yamaha C46 grand, Fender Rhodes 73 suitcase, OBXA 8 voice, Korg Polysix, Minimoog, Hohner D6 Clavinet, Kora BX3 dual manual organ, Marshall 100 watt w 4x12 bottom, Ampeg V4 w/4x12 bottom, Mesa Boogie Fender Twin, Ampeg V4B bass amp, Ludwig drums, full percussion kit

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Studio Manager: Chris Andersen

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Studio Manager: Fred Varqas

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Studio Manager: Frank Virtue

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Studio Manager: J.R. Weinberg

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P.O. Box 25, Briarcliff Manor, NY 10510
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Owner: Wizard Sound Inc., Mike Scott, Pres
Studio Manager: Mike Scott, Warren Hammer
Engineers: Mike Scott, Dave Marsac, Warren Hammer, Phil Magnotti, Caryl Wheeler, Ed Sprigs, Francis Manzella (chief technician)
Dimensions of Studios: Main Room: 13 x 22 x 18 1/2 x 12 1/4 x 14 Live room: 15 1/2 x 15 1/2 x 13 x 9 x 6. Isolation room: 10 1/2 x 12 1/4 x 7 1/4 x 15 1/4
Dimensions of Control Rooms: 20'10" x 13'3" x 14 x 14 x 7'4"

Tape Recorders: Lyrec TR 532 24 track, Studer A80 2 track, Studer B67 2 track, Akai GX2 760 D cassette, Sansui 5100 cassette, Studer A80 VU MKIII 24 and 16 track, (2) Hitachi DF95 cassette, Aiwa 3500 cassette

Mixing Consoles: Harrison MR2, 32 in x 24 out
Monitor Amplifiers: All BGW

Monitor Speakers: UREI 813A, Alter Big Reds, Visonik David 7000, Auratones, Yamaha NS10M, Electro-Voice Sentry 100, Realistic Minimus II

Echo, Reverb, and Delay Systems: EMT 240 Gold Foil reverb, AKG BX20 reverb, Eventide 949 Harmonizer (w/DE-Glitch Mod.), (2) DeltaLab DL1 delay, MXR digital delay, Sony DRE2000 digital reverberation, DeltaLab 1024 Efectron, 2 live chambers

Other Outboard Equipment: (2) dbx 160, Eventide Flanger, Eventide Phaser, Eventide Omnipressor, (2) Pultec EQs, (2) Symetrix signal gates, Ashly SC66 parametric EQ, (2) Universal Audio I.A.175 limiters, (2) Universal Audio 500A EQs, stereo Trident limiters, UREI LA2A, (2) UREI 1176 LN, UREI 535, Dual-10 band EQ, Acoustilog Image Enhancer, Biamp Dual 10-band EQ, Lang PFO2 EQ, (4) Aphex CX1 gates, Roland Dimension D, (2) Dolby 361 noise reduction, BTX Shadow 4700, BTX Cypher code generator, Systech flanger

Microphones: Neumann U87s, 269, E.V. RE20, AKG 414s, 502Fs, 451, D1000Fs, D12, Sennheiser 421, Beyer M201, 160, Sony ECM 22Fs, PML, Shure SM57s, SM58s, SM59, SM60, SM81, SM7, (2) Crown PZM

Instruments Available: Steinway grand piano, Baldwin harpsichord, Hammond B3 organ, Leslie, Steinway upright grand piano, Fender Rhodes ARP Studio Ensemble, Fender Marshall and Lab amps, Ashly instruments, pre-amp, Mini Kora synthesizer, Ludwig drums, Tambo drums, Hoto Toms, SVL, Sabier, Roland JC120 amp, Roland JC90 amp, M.A., Mood JRI, 2x15 cabinet, Phase Linear 700P, Hohner, Lyman. Also available for rental: Oberheim DMX, Sequential Circuits Prophet 5.

Rates: Available on request.

Echo, Reverb, and Delay Systems: Echoplex, Sound Workshop 262, Eventide and Digital digital delays.

Other Outboard Equipment: UREI, Spectra Sonic, dbx, Tom, compressor, Eventide, Harmonizer, flanger, phase shifter, Eqs, rack, Pultec, EQs.

Microphones: Neumann U47s, U85, U87s, E-Vs, Sennheisers AK, Shure, RCA, etc.

Instruments Available: Yamaha, Wurlitzer, Clavinet, Rhodes, ARP, vintage Fender and Ampex tube amp, Ludwig drums, etc. (with permission, etc.).

Video Equipment & Services: Shari system JVC CP9650, W. color monitor.

Rates: On request.

**** THE WORKSHOPPE RECORDING STUDIOS
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40-35 235th St., Douglaston, NY 11363
(212) 631-1547

Owner: Kevin Kelly

Studio Manager: Rich Benvenuto

Engineers: Hal Beaman, Kevin Kelly, David Lerner, Rich Benvenuto

Dimensions of Studios: A: 4 x 11 ft. overhead booth

Dimensions of Control Rooms: A: 21 x 19 ft. B: 15 x 12

Tape Recorders: Otari MT60, M811, 4 track Otari MT110

2 track Studer, 4 track Otari 5050RE, 4 track Otari 5050RE, 4 track

Mixing Consoles: Sound Workshop Series 4, 4 x 4, 4 x 4, 4 x 4

Sound Workshop Series 12, 4 x 4, 4 x 4

Monitor Amplifiers: Beyer, 12, 4 x 4, 4 x 4

Monitor Speakers: UREI, JBL, Altec 604Es, Auratones

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Donald Fagen

by Bruce C. Pilato

After more than a dozen years in the business, the quiet persona Donald Fagen held while growing up in Passiac, New Jersey, is still intact, as is his offbeat way of looking at everyday life in America. He still loves the great jazz artists of the 1950s and '60s, as he did in high school and college, and is still strongly inspired by their music, even while writing pop songs.

What has changed for Fagen recently is his status in the music world. For ten years he was known as half of Steely Dan, a group that really wasn't a group, but was very successful, nonetheless. Last year he parted ways with Walter Becker, his friend and musical partner for 14 years, and embarked on a solo career. In 1982 he recorded and released *The Nightfly* on Warner Brothers Records, one of the year's most popular albums, and one that garnered several Grammy nominations, including Album of the Year and Record of the Year for "I.G.Y."

Despite the fact that Fagen has apparently made it quite nicely on his own, he's still most closely associated with Steely Dan. In the decade they endured, he and Becker delivered some of the best jazz flavored pop records ever to soar up the *Billboard* charts. Their highly structured but somehow natural-sounding songs feature what many consider to be among the best lyrics ever written to contemporary music.

Fagen, as a member of Steely Dan and as a solo artist, has proven you can indeed be commercially successful and still maintain your musical integrity and quality. Like The Beatles in 1966, Fagen and Becker disbanded the touring version of Steely Dan early on to concentrate on being a studio group, dedicated to making records that were as flawless



PHOTO JAMES HAMILTON

as possible. And they did.

After two straight pop albums in the early '70s, *Can't Buy a Thrill* and *Countdown to Ecstasy*, they went on to write and record a series of albums that were called masterpieces by a majority of critics and radio programmers, among them *Katy Lied*, *The Royal Scam* and *Aja*. After a three year lapse and a highly publicized legal battle between two major record companies, Fagen and Becker released *Gaucho*, an album that somehow seemed to naturally fuse pop, jazz, Latin and rhythm & blues.

When Fagen, along with Becker, made the decision to limit their energy exclusively for the studio, they set out to refine the art of making popular records. Some of the Steely Dan albums, and Fagen's solo outing, feature as many as 24 musicians with a wide variety of backgrounds, yet the recordings always have sounded as if they were done by a tight, well-groomed musical unit.

Recently Donald Fagen, who gives interviews about as frequently as he makes records, spoke from his New York City apartment about his budding solo career, his past with

Steely Dan, and his tentative plans in the new frontier.

MIX: Did the idea to do *The Nightfly* come about while you were still working within Steely Dan or had you already decided you wanted to be a solo artist?

FAGEN: Well, it was sort of both. I had been thinking of doing an album that would be basically autobiographical for a long time, but I didn't know how I was going to go about doing it. At the same time Walter and I decided we needed a break from each other. After being together for 14 years, we decided we wanted to do something different, so I guess the circumstances were right.

MIX: Is *The Nightfly* completely autobiographical, or do some of the songs stray away from that theme?

FAGEN: Well, I used the late 50s and 60s and the time I was growing up and the environment I grew up in as a basis for the songs. I just kind of used that as a jumping off place.

MIX: Were you ever a disk jockey?

FAGEN: No, but I used to have a very romanticized conception of what late night jazz disk jockeys looked like and what they did. When I was growing up in suburbia it was kind of a lifeline to urban culture, all those late night jazz shows that were broadcast out of Manhattan. They don't have them anymore really, except for maybe one or two, but in those days jazz was in a very good period so I used to love their shows. So one of the characters I thought of was an idealized version of this.

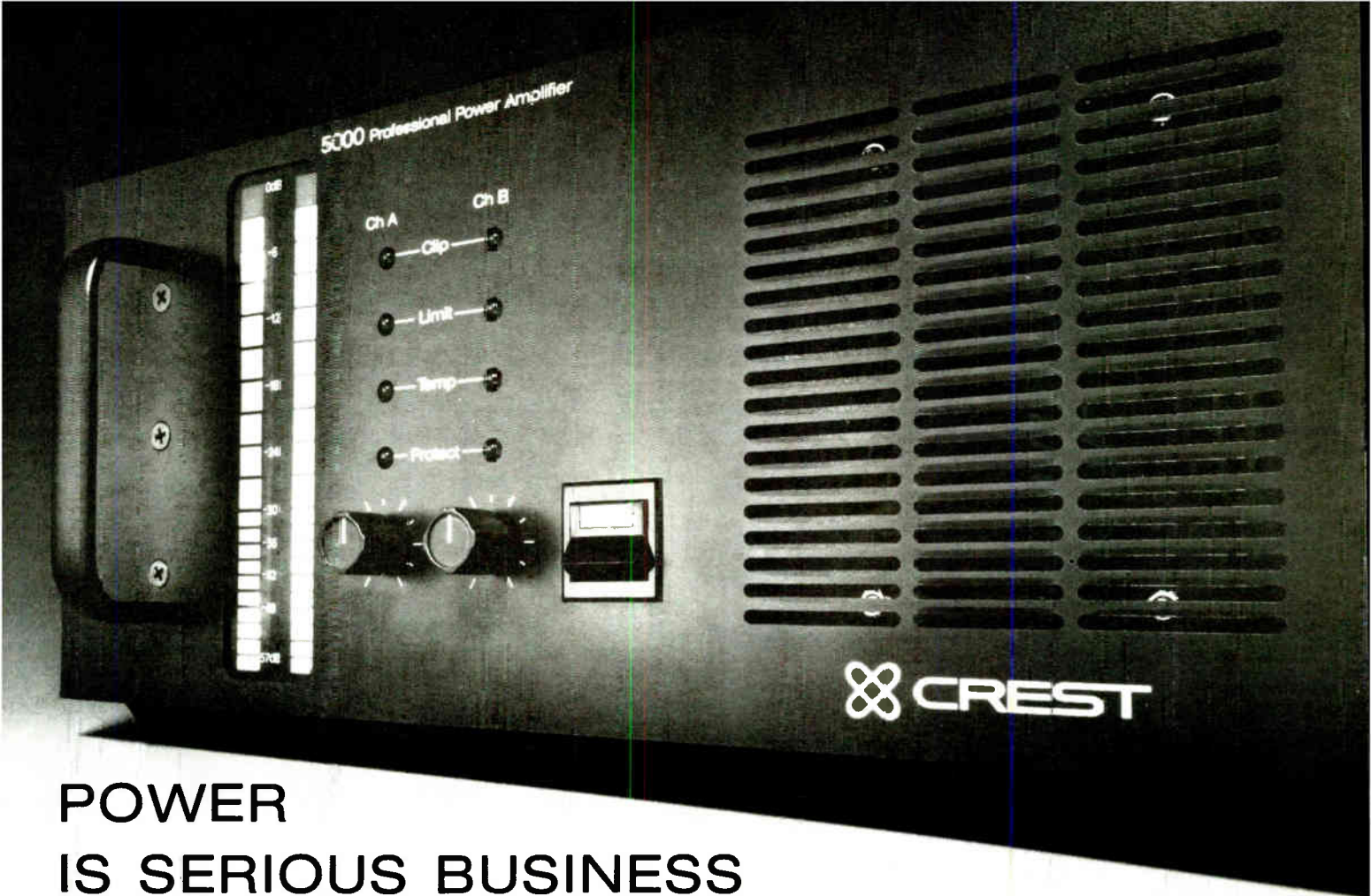
MIX: None of the Steely Dan albums were concept albums, were they?

FAGEN: No, this is the first album that I ever did that had a concept underlying the whole album.

MIX: Was it harder to write because of that?

FAGEN: Actually, I wrote six songs that came rather easily, at least the ideas

—Page 64



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did, but I had a little trouble with the last two filling it out. But I think the concept was strong enough to support a whole LP.

MIX: Was *The Nightfly* much different for you to make than any of the later period Steely Dan albums?

FAGEN: The recording was the same, but the writing was a little tougher since I didn't have Walter there to help and get ideas from. Of course, because I was basically writing about myself and the period I grew up in and from my own experiences, that made it a little easier.

MIX: Since you used the same Steely Dan team of producer Gary Katz and engineer Roger Nichols, *The Nightfly* had a tendency to sound similar to the Dan's recordings. In order to break away from that association do you think you'll have to start working with a different producer, engineer, and different musicians?

FAGEN: Well, yeah, we did have the same team so it did sound like those records. I guess if I worked with different people it would change it somewhat, but I think it would be minimal. Basically, I have a certain style of writing which I don't think could change drastically. You might be able to do something in the mix, but I don't know. We'll just have to

see. I don't think Walter or I ever thought of Steely Dan as having a "sound." It just came naturally. It wasn't a conscious thing.

MIX: And you feel *The Nightfly* came just as naturally?

FAGEN: Yeah, right. To me, when I sit down to write a song I find certain harmonies appealing and I have a blues-based way of singing and, so you know, it's quite natural for me to

come up with those kinds of songs. **MIX:** There was always such a long gap between Steely Dan albums, especially with *Aja* and *Gaucho*, yet *Nightfly* didn't seem to take that long in comparison. Was this because now it was just you in the studio planning and making decisions?

FAGEN: I don't think so. The gap between those two Steely Dan albums

—Page 92



An Interview with Gary Katz

by George Petersen

Gary Katz, while best known for his work producing all seven Steely Dan albums and Donald Fagen's solo debut The Nightfly [see December 1982 Mix review], is an exacting producer who refuses to be typecast into any particular style of music. Some of his past projects have ranged from Root Boy Slim and the Sex Change Band, to the critically acclaimed Eye to Eye. Currently on the A & R staff at the WEA Corp. (Warner/Elektra/Asylum) in New York, Mr. Katz took time off from his busy schedule to recall some of his experiences working with Donald Fagen, Steely Dan, and to talk about the future of the industry.

Mix: What are some of your current projects?

Katz: I'm working on a project with James House for Atlantic, and I will be doing another Eye to Eye record next

month. Donald [Fagen] and I did a track for *The King of Comedy*, the Scorsese movie. We produced the cut with David Sanborn. It's a song of Donald's that we had, and we convinced them to let us make a record with Sanborn playing Donald's songs. It turned out great.

Mix: How many outside projects do you do a year?

Katz: It depends on what I'm doing. If I'm working with Donald, and it takes me a long time, I'll do less. This year, I'll do a couple – the Gary Morton album I'm in the midst of mixing now has worked out real well, and I'm real happy with the album. So I still look for new artists. I find them occasionally.

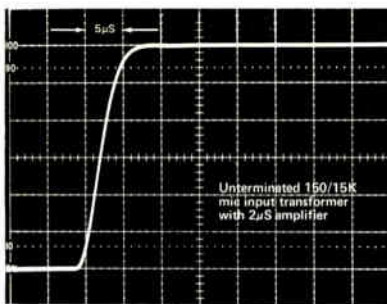
Mix: What criteria do you use in selecting outside projects?

Katz: I don't have one. I really just care that I hear something that touches a button in me, whether it be Donald and Walter [Becker] or Eye to Eye or this kid James House, which is as different from those two as anything I could think of. A

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Guitar Input (carrier)	1/4" phone jack 100 k Ω
Guitar Amp Output	1/4" phone jack 5 k Ω
Mono/Stereo Output	1/4" phone jacks
Power Consumption	3 watts
Dimensions	19" (W) X 3.5" (H) X 9.7" (D)
Price	\$995.00

The Roland Vocoder is the first truly sophisticated Vocoder to be priced reasonably enough to be accessible for most applications. The Vocoder requires two inputs: the carrier input and the program input. The program input consists of spoken or sung words which are input through a microphone. The carrier usually consists of an instrument input such as a synthesizer.

The Vocoder circuit consists of two major sections: the analyzing section and the synthesizing section. The analyzing section breaks down the voice (or program) input to determine its frequency or content at any given instant, then re-assembles this sound in the synthesizer section using the instrument (or carrier) input as a basic source of building material. The program or voice input is analyzed by passing it through a set of eleven Voice Character Frequency filters.

The Mic (program) input features both XLR and phone connection jacks, and a Level control with LED indicators for optimum level settings. There are two carrier inputs, one for most instruments, and the other specifically for guitar, with a control designed to tailor the Vocoder's response to guitar harmonics. These carrier inputs both feature Level controls and LED indicators.

An interesting feature of the Roland Vocoder is a Hold feature that holds the Vocoder tone color as long as desired and is used to bridge gaps where the singer takes a breath. An Ensemble (or Chorus) effect serves to give added dimension to the Vocoder sound.

For more information contact Roland Corp US, 2401 Sawbrook Ave., Los Angeles, CA 90040.

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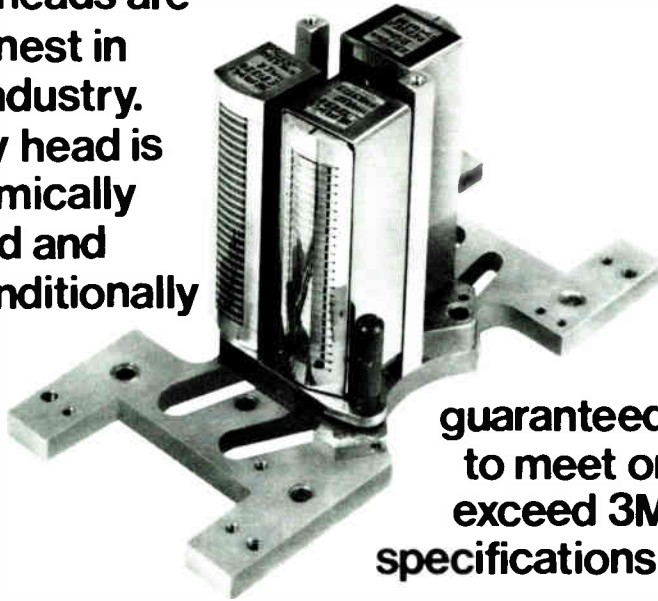
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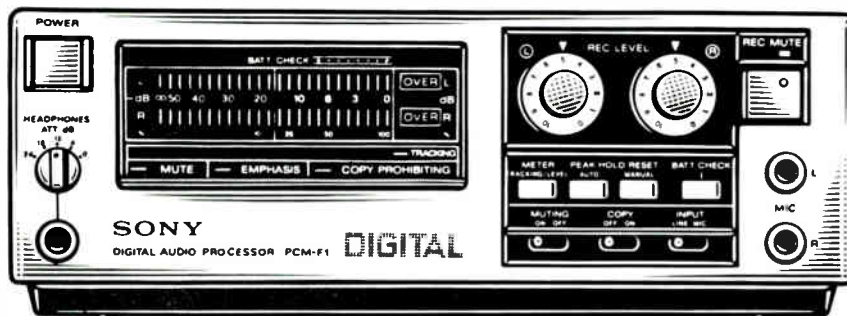
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—From page 64, KATZ

real good singer, good songs, and somebody who I can personally get along with, who I'll have to live with for X number of weeks or months in the studio in a give and take situation.

I'm not the kind of producer who goes into a studio and says: 'This is how we're gonna do it.' I never have been. I prefer the music to come from the artist. Otherwise, I'd be making the records myself.

Mix: What's the difference in working with an artist like Donald Fagen as opposed to working with a group like Eye to Eye?

Katz: Well, obviously one of the major differences is Donald has more liberties with regard to his budgets, and so he can be more selective, take more time, and so forth. When you're working with an artist who doesn't have the earning and selling power that Donald has, you have to be very cost conscious. And these days, at the prices it costs to make records, you have to be very, very concerned about that. If you're not, someone else will remind you.

Mix: Has Steely Dan as a group ended? Was there a separation between Donald and Walter?

Katz: There was unquestionably a separation a year and a half ago. What will happen in the future is really up to Donald and Walter. I don't know. As of now Donald has recorded alone. It wasn't a split of animosity. It was just a sense of wanting to do something different for a moment or two.

Mix: How did the idea of using so many studio musicians start in the Steely Dan group?

Katz: It was very easy. We loved the way various people we knew played. Some point after we had done the first few albums with the band, we (meaning Donald and Walter more than me) wanted to expand some of the musical ideas we were dealing with. It started off on a one player basis, a two player basis, without anything being specific. It just grew into something we enjoyed.

Also, at the time, some of the other players in the band were very itchy-about playing on the road. Donald and Walter didn't want to do that anymore. So when the Doobie Brothers' situation came up, with Jeffrey [Baxter] for instance, it was an opportunity for him to be in a successful situation as well as a highly visible one. He liked that. So Jeffrey went to play with the Doobie Brothers. And soon thereafter, Mike McDonald went to play with the Doobie Brothers. And one thing led to another. There wasn't a plan.

Mix: How is it that Steely Dan could sell albums without the force behind tour-

ing and without pushing themselves on video?

Katz: Well, for one thing, there was no video then, and I don't know that we would have utilized that at the time. There wasn't an absence of touring. They did four tours and that included every place in this country. Four times, as well as overseas once.

Mix: But that was back in '76.

Katz: It started in '72-'73. There was one in '74, one in '75, one in '76. So it's not true they weren't a touring band. They were. They got tired of it. It wasn't a lifestyle they particularly enjoyed.

How did they get away with it? Without being pretentious, I'd say their music was exceptionally good. They probably would have sold even more if they had continued to perform. It wasn't a criteria for them. Selling a million-eight wasn't important enough as selling a million-two, to go out and put themselves through what they considered to be hell.

Mix: You seem to have jumped heavily onto the digital movement. Do you think that's a coming thing?

Katz: I think it's the only thing. Anyone who doesn't deal with digital recording these days as the future isn't being very realistic. The quality of records being

made non-digital, from the multitrack tape to the vinyl, is totally inferior. To charge \$9.98 for a record that sounds bad, and skips, and has all sorts of sand and horseshit in it is a ripoff.

Mix: I guess you're looking forward to the digital disk also.

Katz: I'm looking forward to anything that's digital, because of the quality. The only problem with digital these days is the cost factor: It's a little prohibitive. I wish there were some way the record companies and recording industry could get together on digital equipment and get it done quickly. I think it's a bonus and a boon to our business in a time when everybody's complaining about its death. And although it's not the answer, it's one answer, because the quality of the material we put out for the price we put out is inferior.

Mix: What future changes do you see ahead for record companies?

Katz: I think record companies will be pared down to what they were in the 70s. There'll be less excess, so far as personnel is concerned. I think record companies should go back to what they used to be, which is music instead of accountants. Now, I don't put the blame on the accountants for the state of the business. On the other hand, you can

walk into most record companies these days and hear computers going, and not music. It just rubs me wrong.

Mix: A lot of people see independent labels taking over the function of the record company A & R departments.

Katz: I think that's wrong. There have always been independent labels, there have always been guys out on the street, there have always been guys in offices. They've always been an arm and the tool for the record companies. The thing they lack is financing. For instance, at Warner Brothers, their A & R department probably generates more of their income than anything else.

If I were the president of a record company, the first thing I would do is build an A & R staff of people whose taste and ability to hear something good I trusted, because I think it comes from inside. You can't sit there waiting for it to come from the outside.

Everybody complains about billing and merchandising, and this video and that tour or TV appearance, and I think it's all truly secondary to finding artists and making hit records. Spending all your time and energy and money trying to get a cover of *Rolling Stone* for this artist, or a TV show for that artist is against spending your time and energy creating the music that will make it happen. I think that's shortsighted. ■

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JERRY WEXLER

Heart and Soul

by David Schwartz

Jerry Wexler is a name that has become a household word to those of us who grew up devouring the information on album jackets. His mark on the record has been like a Good Housekeeping seal, guaranteeing that the music contained therein is a first-rate addition to any collection of important American music.

As the consummate record producer and as a partner in the highly successful Atlantic Records, Wexler has fashioned an audible museum of musical history. His guiding light brought us the first Ray Charles recordings of thirty years ago, as well as the heart of soul music of such landmark performers as The Drifters, Wilson Pickett, Sam and Dave and Aretha Franklin. Grand as these contributions have been, Wexler did not peak out with the mid-sixties crossover

black superstars. In 1974 he signed and produced Willie Nelson, and launched himself into the stratosphere of contemporary pop and country music producers. Since then Wexler has had a hand in such diverse ventures as Kim Carnes, Dire Straits and Bob Dylan's Christian recordings. He is no less active today, at 66, immersed in film and theatrical productions while maintaining his unremitting pace in the recording studio.

We had the good fortune to catch up with Jerry during his supervision of the Carlos Santana solo album, *Havana Moon*, and at a pleasant seafood restaurant in Sausalito, California, he produced some food for thought. Wexler sees his role as something akin to "a traffic cop with an MBA. You've got to keep it moving without impinging upon it with your own weaknesses or personality stamp. You've got to bring out

the essence of the artist and keep yourself out of it. You have to be very supportive, emotionally and psychologically, and you have to make it flow. You can't study your way through it and you can't make the artist feel you are patronizing him or playing nursemaid. And if you don't feel you are bringing that kind of support to the project, you shouldn't be there."

Specializing in vocal artists, Wexler breaks down his specific functions as being involved with "who is singing, where that singing is taking place, what will be sung and who will be playing behind it. Now that sounds simple, but then you put those all together and try to make it fresh and innovative without insulting the integrity of the artist for the sake of novelty. It all has to gel.

"A producer has to have a feeling for two things: rhythm, or meter, and intonation. If you don't know when it is out of tune and if you don't know when the rhythm is faltering, then all the knobwork in the world isn't going to save you."

A jazz fan and record collector since his childhood and a journalist by education (his journalism degree from Kansas State led to a reporter's job covering the music beat for *Billboard Magazine* in the late forties), Wexler sees the record industry in a very troubled situation and approaching an inevitable change. "If you go back and look at the big changes, the real watersheds, they were usually a combination of some socio-economic move plus some technical innovation. For example, when the Edison cylinder gave way to the Victor phonograph, the country was in a period of invigoration with people just coming back from the war. And here came all of these Red Seal records for your grandma's phonograph.

"Then it went again into a period of attrition through the thirties until the development of the electric phonograph and Jack Kapp's introduction of the 35¢ record at Brunswick—for artists like Bing Crosby, Guy Lombardo and The Andrews Sisters—to help bring people out of the doldrums of the Depression.

"We're going through another long one and something is going to have to happen. I don't know if it will be video, or a price factor, or retrieving music from some central collection

agency by pressing a button, or what the hell it is going to be. It's going to take a lot of things. But I don't think it will depend solely on a new Elvis or a Beatles who is going to lead us down the road to redemption.

"But you know how I personally feel about video and the new technologies? And this has nothing to do with my seniority or how many years I have left in the business. I feel the important thing for me is the same as it always was: a singer and a song. I'll let George do the rest - I just want the music. I've always had a thing about muddling the two senses. The great thing about music is that you can play your own scenario with your eyes not directed or commanded. Right now a certain age group is glued to the tube, and MTV is very important. But I don't believe that kids are going to go out and buy a video cassette of The Police and watch them the way they put on their records now to do their homework. It's an unpopular view, I know."

A new breed of record producer is coming forth, according to Wexler, oriented to the street scene and taking a more interactive role with the artist than ever before. "It's changed from my early days. Back then there was more of a gulf between

the artist and the producer, but today it's much more kids hanging out together. They jam together and hang out in the clubs. One might play bass on a record and then go on tour doing the sound mix for somebody, and then go produce somebody else in an eight track studio. It's a whole mishmash. But this is the time for it. You've got to be tough; you've got to stand a lot of failure. And then, suddenly, here it comes.

"There is a combination of business conditions making it important today to be on the streets. You're not going to do it in an office waiting for cassettes in the mail. The people on the street are going to happen again. But it takes being in those clubs every night and hanging out with the artists and becoming friends with them. It's a peer thing."

Though he plans to decrease his record activity in favor of film and stage productions, Wexler is nonetheless enthusiastic about his most recent album projects: Carlos Santana's solo venture with guest artists Willie Nelson, Booker T. Jones and the Fabulous Thunderbirds [see story in last month's Music Notes] and a new CBS artist, Steve Bassett. "Steve is a very strong white rock and roll singer from Richmond, Virginia, with a voice

something like Teddy Pendergrass." Wexler co-produced the record with his frequent partner, Barry Beckett, for his old friend John Hammond's production company.

"I'm not looking to do a whole lot of albums," says Wexler, "because I'm more interested in movies and theatre, unless a good project comes along that interests me. I don't want to do more than maybe three albums a year. I want to leave myself open in case some of these other things come up. I'm an associate producer of the Broadway musical, *Nine*, but my title might better be astute investor because I don't have much creative input. *One More Time*, though, is really a show that I have had a lot to do with. It just had a terrific opening at the Village Gate in Toronto."

Wexler's next project will very likely be to develop the soundtrack for the new Robert Evans film, *Cotton Club*. "[Evans] has done me the honor of asking me to do the music. We're going to replicate the Duke Ellington band, Cab Calloway and Fats Waller. It takes place in the twenties and thirties, in Harlem. It's the epitome of the glamor of that age, the whole deco look. It was a fantastic period, with great music, and so it's very exciting for me." ■

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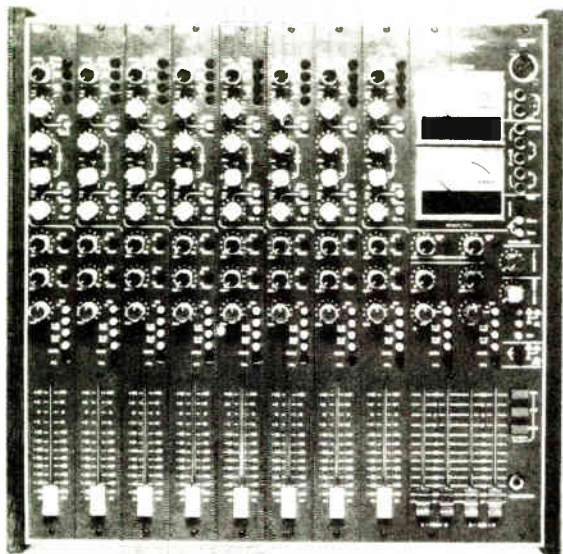
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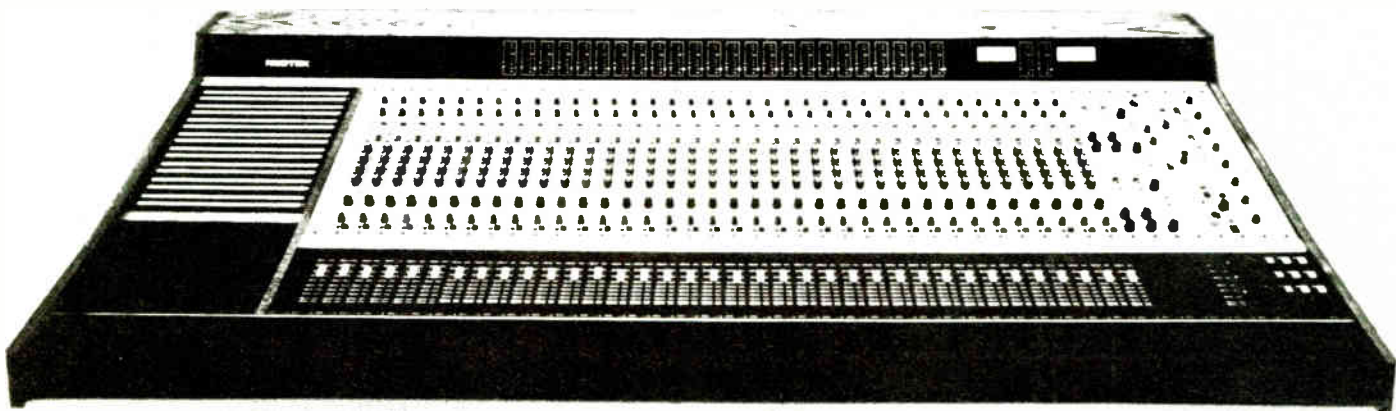
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World Radio History

by David Gans

Everybody's got his own definition of paradise, and every paradise has its troubles. Randy Newman's new album, *Trouble in Paradise*, takes this notion and examines it from an assortment of perspectives. In "Mikey's," a long-time regular at a neighborhood watering hole grumbles to the bartender as the modern world crashes in around him, ethnic music and all; in "Take Me Back," a spoiled and myopic suburban fuckup whines about his problems in often-unrhymed verses—form and content illustrating that he's never seen anything through to completion, including his adolescence; in "My Life Is Good," a wealthy and arrogant LA father browbeats a private-school teacher who dares to darken his day by telling him his son is a bully; in "I Love LA," paradise is nothing more than a sunny day, a convertible, a radio that plays the Beach Boys, a "big nasty redhead," and a nice wide street.

Newman's songs are as fully developed as short stories, set to music which combines state-of-the-art sounds and rhythms with some sophisticated American harmonic and melodic flavors—an entire century's worth of musical influences—and sung in a somewhat crimped nasal rasp that's surprisingly powerful and expressive considering that Newman sounds as though he's got a *terminal* cold most of the time.

Lenny Waronker, Newman's producer and also his best friend since childhood (and since last October, the president of his label, Warner Bros.), explains that Newman's importance to the music industry transcends commercial viability. "He may say that he wants commercial success—and he does—but what's more important to Randy is that the music is good.

"He's had healthy sales growth, so it's not just Warners being good guys," Waronker adds. But sales figures aside, "Randy's standards as a songwriter are so high that it's *important* that he make records."

The roster of artists on *Trouble in Paradise* includes, in addition to top-flight studio players including synthesist Michael Boddicker and three members of Toto, such superstars as Paul Simon (in a duet with Newman on the current single, "The Blues"), Don Henley, Linda Ronstadt, Bob Seger, Rickie Lee Jones, Lindsey Buckingham, Christine McVie, and others. "People who are really curious about what's going on in this business want to be around Randy," says Waronker. "They want to know what he's up to, and they want to be part of it."

"Conditions are too tough out there to be hip any more," says New-



RANDY NEWMAN

Setting A Standard For Pop Songwriting

man in a typically flippant explanation of his decision to help promote *Trouble in Paradise* by touring, doing interviews and starring in a hilariously graphic video of "I Love LA." We met in the Beverly Hills office of his manager a few days before Newman left for the European leg of his solo tour.

Mix: Is it safe to assume that in your writing you're not overly concerned with what's going to sell?

Newman: It would be nice to make money, but I can't change what I do.

I've got to do what the songs call for when I write them, and that's not affected by what sells—at least consciously. Maybe there *are* commercial considerations weighing on me—maybe I want to write standards or ballads like the '40s. Maybe that's deep inside me; I don't know.

Mix: The songs on your earlier albums were eminently coverable, for the most part—

Newman: Not any more—they're too weird.

—From page 71

Mix: Now your songs are more unique to you. When did you make that change?

Newman: I didn't consciously do it. The business changed—people don't want to get into these bad-guy suits any more. Nobody could do "My Life Is Good." But I think somebody could do "I Love LA" or "Miami" . . .

To me, the best of my stuff is not what's going to get recorded the most. "Davy the Fat Boy," which I wrote a very long time ago, was one of the best songs I ever wrote—without a doubt. It hasn't earned four cents in its life—unlike "I'll Be Home," which is of virtually no interest to me. It's made thousands

and thousands of dollars all over the world from people doing it. But I never make any conscious decisions about writing—I just go in there, and whatever comes out comes out.

Mix: Have you written songs for specific artists?

Newman: That was all I used to do—never successfully, but it's how I used to get stuff written. I wrote "Lonely at the Top" for Frank Sinatra, but he didn't want to do it. Barbra Streisand didn't want to do it, either, because she thought people would think she meant it—and she may have been right. But it would have really hipped Frank Sinatra up, you know?

I'd like to be able to do it—to write

something for, say, Foreigner. I've given myself [an assignment] occasionally, just to see if I could still do it. It'll ruin me if I can't write seriously within the form any more, and I didn't for a long time. But it's tough for me to like the music sometimes. I sort of wrote myself into a dead end [on *Born Again*] by taking nothing seriously.

Mix: Are all your songs finished before you go into the studio?

Newman: Yeah. They're always done. "Real Emotional Girl" moved around on me a bit. I have "she comes real quick, it's like a hurricane"—but I didn't want to hear that over and over. I sanitized it ["she turns on easy, it's like a hurricane"]—it sounds better, more literate.

Mix: I don't think anybody would accuse you of gratuitous obscenity.

Newman: You never know—I have sort of a streak of vulgarity that I have to watch.

Mix: But generally speaking, it's appropriate.

Newman: [Laughs] I'll only do a nude scene if it's called for in the story. I'll only say "fuck" if I have to.

Mix: I read in an interview that you feel guilty about the fact that your music takes priority over the rest of your life.

Newman: The only time it takes priority is when I'm writing, and I'm not writing all the time. But if someone said, "You can continue to write well, but you can't see your kids anymore"—[he laughs self-consciously] it would be tough. I can't help it—that's what I'm supposed to do, and it's really important for me to come out of [a writing session] still thinking I'm all right.

Mix: Are you in the pit that deeply every time?

Newman: Yeah. I'm getting a little better—it wasn't as bad this last time. I managed to stay saner, more liveable. I was able to do other stuff, like going to dinner and things. I get a little remote when things aren't going so well; I don't feel so good.

Mix: Are those the times when you write 24 hours a day?

Newman: I never write 24 hours a day. I can't do that. I never get an idea when I'm not sitting down to work—never. I'm so doctrinaire about it that I probably exclude them. I don't like thinking about it when I'm not working. I work from 9:00 in the morning until about 1:00, tops, and I try not to think about it the rest of the day. It doesn't do me any good.

I think that's why so many writers and composers are drunks—to turn it off. I don't keep a pad by my bed the

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PHOTO: DAVID GANS

way Paul Simon and Stevie Nicks do—I work at the piano, and that's it.

Mix: So when you're having a hard time writing, you spend your four hours at the piano and you're in a funk the rest of the time?

Newman: Yes. Aptly put [laughs]. I'm not mean or anything—I'm just not interested. I'm just waiting to go in again.

Mix: I understand you've written a musical.

Newman: I've finished one draft of it. I have to look at it again and see if I can stand it. I don't know when I'd do it, but

I ought to take a shot at something like that. It would be exciting—scary—but I'd do it.

Mix: It's based on *Faust*, right?

Newman: Yeah, it is—loosely. Well, not so loosely, really. That's what it is.

Mix: There have been several versions of that story—

Newman: Yeah. Marlowe did one, and so did Brian dePalma—*Phantom of the Paradise*. Mine is from Goethe; luckily he's not alive to see what I did to it.

In the show *The Bandwagon* they made fun of attempting a musical version of *Faust*. It's sort of a theatrical joke to try doing it, so I may be letting myself in for trouble. But I like it—it's got angels and heaven and all that stuff.

Mix: What's your fixation with angels?

Newman: I like them. I like movies that have heaven in them, angels with wings and God speaking in colloquial tongues. I can see a terrible movie, and if it has stuff in heaven... There was a Jack Benny movie, *The Horn Blows at Midnight*; it was really a bad picture, but I still like the heaven stuff. He played in the orchestra—he was like 148th violinist [laughs]. *Green Pastures* was great; you never see it any

more, because I guess it's offensive, but it was a great picture—particularly the heaven parts. The stuff on earth isn't as good. I guess it never is [laughter].

We'll see whether I do [the *Faust* musical] or not. Someone may see it and say, "Go back to songwriting," and convince me.

Mix: Are you that easily intimidated?

Newman: Yeah. I don't accept anyone's opinion on what's funny, but if someone said, "This won't work structurally—you can't do this on stage," I'd probably... But I enjoyed doing it so much that I'd do it again.

Mix: You seem to sell your skills short—

Newman: Not about what I know I can do. I know I'm a good songwriter. I take myself very seriously, but I don't have all the confidence you'd guess someone who is relatively successful would have. But a lot of other people don't, either—it's endemic to the business. After I write a song that I consider completed I'm all right, but between songs I wonder about writing another song.

Mix: I think all creative people go through that

Newman: Yeah, that's all it is. I just whine about it more. ■

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LUNCHING WITH BONZAI

The Adventures of Harry Nilsson

by Mr. Bonzai



— I got lost twice in the labyrinth of Bel Air on my way to this lunching with the reclusive Harry Nilsson. As I drove through the guarded preserves of Los Angeles' aristocratic wildlife, I mused on Harry's past: those superb

albums (eighteen, in all) that gained him the recognition and even adulation of The Beatles, the classic "One Is the Loneliest Number," the animated children's show "The Point," the theme songs for *Midnight Cowboy* ("Everybody's Talkin'," written by Fred Neil) and "The Courtship of Eddie's Father," and, of course, that legendary comedy team of Lennon and Nilsson that terrorized the sophisticates of New York and L.A. They were bad boys out for the cosmic laugh and were carried away with their inspired mischief.

As I struggled with my emergency brake and made ready to test the clutch of my '64 Fairlane on Harry's steep driveway, I leaned out and pushed the button on the Jack-in-the-Box intercom. "Mr. Bonzai" was the magic charm that opened the gates and I chugged up the asphalt burro path. Harry greeted me, wearing a voluminous terrycloth bathrobe, and introduced me to his six year old son, Beau. I next met Una (his lovely Dublin wife), the O'Keeffes (his in-laws from County Cork, Ireland), Annie O (his one year old daughter), and Ben E (his 3 year old son). His 12 year old, Zak, was not there. Harry excused himself while he repaired his son's video game and then set up a nostalgic mood with a little film of some sessions he had done a decade before with Ringo, Jim Keltner, Richard Perry, and a cast of hundreds. He segued into a jolly clip of "Let the Good Times Roll" which inspired Beau to call out, "That's my favorite song, Harry!" The first chorus of Nilsson's memorable declaration of unrequited love, "You're Breaking My Heart" slightly raised the eyebrows of Mrs. O'Keefe, but she continued to sip her tea and seemed to say, "What a rascal," in her smile. The finale of the film was a recording session with 60 elderly British pensioners singing the chorus of that happy anthem of farewell, "I'd Rather Be Dead."

Truth, beauty, and humor were our pals as we slipped off to the den for a chat . . .

Bonzai: Do you write poetry?

Nilsson: I do occasionally, but it's mostly a hobby. I've also been writing letters - a great form. I usually write on airplanes. I've put 70,000 miles on airplanes in the last eight months.

Bonzai: Why all the traveling?

Nilsson: I've been flying around the country talking about ending handgun violence. I'm the national chairman of the End Handgun Violence Movement, and I work with a group call the National Coalition to Ban Handguns. For the record, I'd like to give



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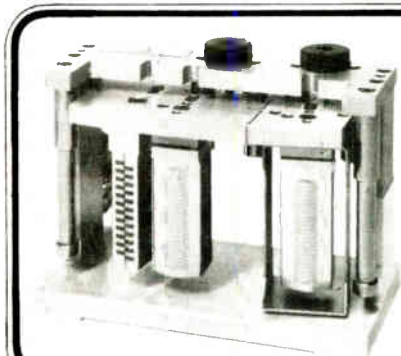
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you their address. If any of the Mix readers are interested—which includes a lot of my friends—write to Mike Beard, c/o NCBH, 100 Maryland Avenue N.E., Washington, D.C. 20002. Tell 'em Harry sent ya.

Bonzai: Has your involvement with the handgun issue enhanced your life as an artist?

Nilsson: Inadvertently, yes. I've met and talked with thousands and thousands of people and along the way someone suggested that I get the Beatle groups together, for obvious reasons. I contacted Mark and Carol Lapidus, the people who run the Beatleffests all over the country, who have been asking me for years to come and speak. I told them I would—under certain circumstances. I didn't want to get paid for anything, but I asked for a booth and some volunteers to help raise money for NCBH. I got Ringo to autograph some albums, and we distributed literature.

I've been enjoying the work and I started hanging around with a band called Liverpool that plays at the conventions. They are a Beatle sound-alike, but they're very good musicians and we started jamming together at night. After one of the speeches, somebody yelled, "Do something, Harry!" so I asked the drummer if I could sit in. It was terrific and I felt really good. The next thing, I wrote a song called "Lay Down Your Arms and I Will Open Mine," sort of a "Give Peace a Chance" chant. I tried it out on the audience and had them chanting for five minutes and the whole place was cookin'. Some nights I'd sit at the piano, make a different speech. As a result of being on the road and traveling on airplanes—which is like a mental night out on the town—I've written a lot of tunes and many letters to my wife which end up being short stories. It's all made me think this may be a nice time to unretire.

(I happened to glance over at a photograph on the wall with three strangers looking like a dishevelled Mount Rushmore. I asked who they were.)

Nilsson: That's Terry Southern on the left, Dean Stockwell in the middle, and me on the right.

Bonzai: That's you? I thought it was Dr. John.

Nilsson: The picture was taken when I wanted to be like Dr. John. He and I are very dear friends and I was wearing overalls and glasses and scarves and talking like this (gravelly voice). I carry with me at all times a suicide

prevention card, a methadone treatment card. It's Mac's—Dr. John's—card with a picture of him, and dated 1974. We once got loaded together and I gave him my driver's license with my picture on it and he gave me his suicide prevention card because he doesn't have a driver's license. Once, when he was driving in New Orleans, he was stopped by the police

did in 1956. I had this beat up old radio that I kept next to the bed. There was only one station in town that played R&B—Little Richard, Ray Charles, Chuck Berry, Joe Turner—and I had myself programmed so that if I heard something that I liked, I would wake up and get real close to the radio and get into it. I was about 12 during those secret days of radio,



and they asked for his license. In desperation, he gave them mine. The officer said, "Oh, yeah, I have two of your albums - drive carefully." I haven't found a proper use for his suicide prevention card, but I have it in my wallet.

Bonzai: What was the first piece of music you wrote?

Nilsson: It was a song I wrote with a friend of mine called "No Work Blues." I was about fifteen.

Bonzai: Did you suddenly feel that you were destined to be a great songwriter?

Nilsson: No, but I had a feeling that I was going to be some sort of superstar - maybe an actor or something. When I was a kid of ten or eleven, I used to get under the covers and say, "And now presenting *me* doing the great Al Jolson - "Mammmmy" . . . or Humphrey Bogart, or "and now presenting ME spelling the word 'Czechoslovakia!'"

There used to be a station in Los Angeles at the time - in fact, the man is still on the air: Dick Hug Huggy-Boy, and he still plays the music he

around the time you start masturbating. Music and puberty go hand in hand, if you'll pardon the pun. In puberty, the blood starts pulsing and you want to hear rhythm. Your body is changing. Later on, you add harmonies and you advance through that adolescent teenage period and on to the college age where you might get into jazz. If you're lucky enough to continue your interest in music, you might end up learning to love the classics. There is a sexual, physical, and emotional parallel with music. Music is the highest muse.

Bonzai: What is the most recent business trick that you've learned?

Nilsson: When taking a business trip, make sure that you know how to get the free gifts at the Rent-a-Car place. I just came back from San Jose armed with Snoopy dolls, wristwatches, a calculator, and an umbrella. You have to ask.

And don't oversell the deal. If you've made your point, don't push it. When you win your argument, don't run the guy into the ground.

And *also*, don't buy a yacht. Invest in real estate.

Bonzai: If you could have another singing voice, male or female, whose would it be?

Nilsson: Little Richard's.

Bonzai: If you could be cast as the leading man in a film, what role would you choose?

Nilsson: Holden Caulfield in "The Catcher in the Rye."

Bonzai: Who is your best musical friend?

Nilsson: Ringo, and Van Dyke Parks — it's a tie. Van Dyke, of course, is the Oscar Levant of the music business. He's a man who really knows how not to live.

Bonzai: What's Ringo up to these days?

Nilsson: He's making a movie with Paul. I think he's bored stiff with England, but he won't admit it. On the other hand, he isn't really bored with England, but I won't admit that. He's having a great time, as a matter of fact, learning to ride horseback with an English saddle. I just taped all 18 hours of "The Winds of Bore" for him, since they only get TV Bulgaria on their satellite dish.

Bonzai: Who is the Cecil B. DeMille of music?

Nilsson: Phil Spector has the grandiose qualities that come closest. On the other hand, Richard Perry runs a close second.

Bonzai: Who is the Benjamin Franklin?

Nilsson: Randy Newman.

Bonzai: The Ernest and Julio Gallo?

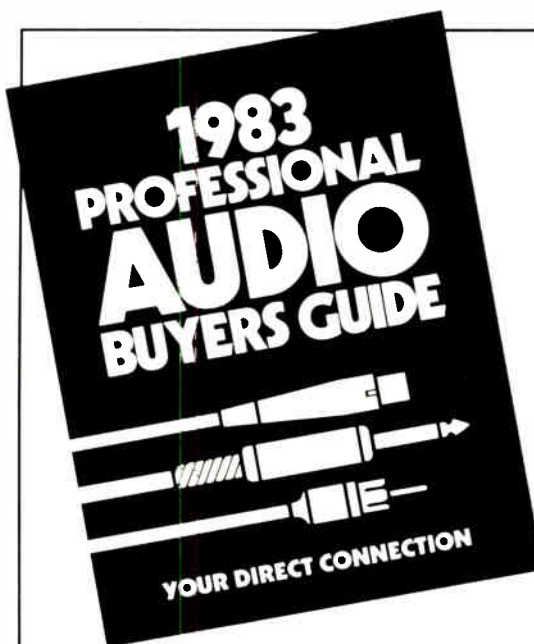
Nilsson: Cheech and Chong.

Bonzai: How much money have you made off your art?

Nilsson: Millions. I invested wisely, but currently I'm cash flow broke, as they say, because I bought some land in Australia and I'm trying to buy a TV station. I've made a lot of money, but I've spent a lot of money.

Bonzai: How did you make that financial leap from being a bank teller?

Nilsson: I wasn't a teller; I was in charge of a computer center for seven years at a bank. I dropped out of school in the ninth grade and became a theater usher and then assistant manager of a theater. They closed the theater and I figured since I knew how to count money, I would get a job in a bank. I lied about my education on the application, but I did a super good job and ended up being in charge. I also started hanging out with people on the fringe of the music



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business. I once saw an ad in the paper for turning songs into demos. I walked in and they asked what songs I had and I told them I thought they wanted someone to sing on demos. So they gave me a job at five dollars a demo and I got to meet people and have coffee with them. One day a guy rushed into the office and he needed someone to sing a song real

Bonzai: So you don't have a job now?

Nilsson: Oh, I have a little spare parts box and have been doing some work on the film "Yellowbeard" with the Pythons, and Cheech and Chong.

Bonzai: I'm sure everyone is curious about the times you spent with John Lennon - how do you look back on



quick. I think the artist had died. The boss pointed at me, shrugged, and said, "Him." It was for Mercury Records and I wrote the B side. They never put out the record but I was under contract for a year.

I used to work nights at the bank and I made a deal with someone who had an office who let me use it at night in return for washing the windows. I'd get off work from the bank at one in the morning, go to a bar and get tanked up, and then write a song a night in the office. One of the first songs I published was written there: "Without Her" . . . "I spend the night in a chair thinking she'll be there, but she never comes. . ." That started my writing and I knew then that I would never write a *bad* song.

Bonzai: Who recorded your first song?

Nilsson: The New Christy Minstrels did "Travelin' Man," which I wrote with Scott Turner. That was the first time I got a royalty advance - five dollars. From there I went to RCA and stayed for a lovely decade dance. Then I left RCA and here I am, jobless and friend-filled.

those days?

Nilsson: Well, we were roommates here and there - a month and a half in New York, and about a month out here at the beach house while we were recording "Pussy Cats." We had the wildest assemblage of that part of history in that house - it makes the round table look like a toadstool.

Bonzai: You don't perform much these days, do you?

Nilsson: I've never performed professionally. I figure that people who are interested in the recording business have a right to make a living making records.

...

The afternoon was sliding into evening and guests began to arrive. Michael Wasp, an artist, came over with some sketches of a painting he was doing for Harry; the children were hopping around asking for some magic tricks; musicians and filmmakers were soon filling the room; Tim Leary appeared with the autobiography he had just completed. Harry's clubhouse of the arts is alive and well.

FILM SCORING WITH DIGITAL SYNTHESIS

by Don Preston



"Oh, no!" I said, "Two of my eight tracks are down and I have less than a week to complete a new film score." Fortunately I had just received my new alphaSyntauri digital synthesizer. After years of recording with my monolith monophonic modular Moog,

having an eight voice polyphonic was a real luxury.

From past experience I knew that preplanning was vital to having a polished, professional score. The first thing to determine was the length of each cue. In the past I have referred to several timing books, one being *Technical Handbook of Mathematics for*

Motion Picture Music Synchronization by Ruby Raksin. Most of these books are expensive (over \$100) and since I already had a computer I opted to write a program that took either footage or timing of a cue and combined it with a metronome or click track setting. Adding a time signature produced a readout of how many bars of music to



play.

I have used other ways to get an accurate timing of the cue. When I worked on *Apocalypse Now*, we would lock the 24 track to a U-matic VCR with SMPTE while Carmine Coppola conducted a pianist playing his movie score. Later I would start laying down tracks using the piano as a guide instead of a click track. This last method, although more expensive, has been the most accurate, eliminating the typical need for the music editor to shorten or lengthen the music to make it fit.



When I sat down to write the music for my latest score, I found that I had more options in writing than I ever had before. When I wanted a full string sound I first laid down a sync track (provided by the alphaSyntauri), then recorded my first string track and a few other sounds into the Apple's memory banks. Using the alphaSyntauri stereo output I laid down two tracks, letting the tape recorder drive the computer's recorder. Then I recorded a second string track duplicating the first one, added some other sounds, and (using the taped sync pulse) recorded that onto two more tracks on the tape recorder

in sync with the first two tracks. I doubled the strings one last time on another track, using an analog synth running through a Moog string filter to give my strings a little more bite and a more "wooden" sound. I panned the strings in different places and had different vibrato rates on everything so the strings would sound like a symphony orchestra, instead of a tiny synthetic string ensemble.

As with the strings, I've found that a slight amount of "sweetening" is also necessary for a good brass instrument. The digital unit does not have a filter and that hinders it from having a good "synthesizer" brass sound. However, with the ensemble mode it is now possible to set up, say, five instruments—each with a different timbre and attack. Then when I use the ensemble mode and play all five instruments with one keystroke, I get what appears to sound like a filter opening up. However, until I have that perfected I crank up my trusty Steiner E.V.I. This tiny synth gets the best brass sound available, at least in the analog world.

The digital system has a little difficulty with some of the percussion sounds. Depending on the budget I will first choose to use real percussion, mostly because it saves a lot of time and

secondly, have you ever heard a good synthesized cymbal? When I recently scored a horror film (Oh boy!) I hired Alex Kline to come in and lay down some tracks. Alex is a very unorthodox player and in a matter of seconds he accomplished what would have taken me hours or even days to do.



About recording levels: when I'm striving for a full orchestral effect I set my levels so the loudest thing I play is about +2 dB. I never change the levels for softer passages. Much of what I recorded is between -5 and -7 dB. This allows for a complete dynamic range for my 'orchestra,' and I've found that the sound at these levels is much more transparent than up past zero dB.

An ongoing problem I've had with all digital systems is getting the recorder to play back the notes exactly as I've played them. A very minute difference in certain instances can be very annoying. I have found one solution that works with the alphaSyntauri. First I load the ostinato figure into the sequencer on my Sequential Circuits Pro-One and connect my drum machine to the Syntauri. I then connect the drum machine's trigger to the trigger on the

F O R M U L A

$$\begin{aligned} & 1 \text{ alphaSyntauri}^{\text{TM}} \text{ Music System} \\ & + 1 \text{ Apple}^{\text{TM}} \text{ Computer Music System} \\ \hline & = \text{The Affordable Computer} \\ & \quad \text{Music System} \end{aligned}$$

Pro-One; when I turn on the metronome in the Syntauri, both the drum machine and the Pro-One's sequencer start playing. Then all I have to do is play along with the figure on the Syntauri's recorder - the tiny imperfections are smoothed over by the Pro-One's perfect time.



One advantage in using the digital system is that I'm not limited to only three or four waveforms. I can create my own waveforms, limited only by my imagination, then store hundreds of them on a single disk. The same thing is true of envelopes. On the alphaSyntauri the envelope pattern is something like this: Attack Rate, Attack Volume, Decay Rate, Sustain Rate, Release Rate and Release Volume. Since this system is stereo, I can have two separate envelopes with each key press, allowing for some really unusual sounds.

When I was working only with analog equipment I always worked intuitively with all my patches, never writing anything down. Most of the time I would get what I wanted... but sometimes I wouldn't. Now, with the digital system, every instrument I make gets recorded. If five years from now I

decide to use the glass marimba I made last week, there it is, right on the disk. The ability to have a finished recording within the system itself and then go to the studio and dump it on to two tracks could very well change the world of recording as we know it today. ■

Don Preston, a fifteen-album veteran with the Mothers of Invention, has performed with the Los Angeles Philharmonic and the London Philharmonic.

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Part III

by **Ken Pohlmann**
with research by
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Digital Delay Line Systems

The digital delay line was one of the first line of products to break the analog tradition in recording studios through the introduction of digital process-

ing. Since then, digital signal processor and digital reverberator systems have joined them in many studio racks. Digital delay lines (DDLs) utilize the fact that information may be economically stored (or at least delayed) in digital form. In DDLs the input analog signal is low pass filtered, sampled, and converted through an analog to digital converter. The binary data is then written into random access

memory. At a later time (hopefully before the memory is full) the data is read from memory, and reconverted to analog by a digital to analog converter. Sound fidelity is generally determined by sampling rate and word length of the converters. Delay times are limited only by the amount of memory acting as a buffer. The greater the sampling rate and word length, the more memory needed.

—page 85

A Review of Digital Reverb & Delay Devices

by **George Petersen**

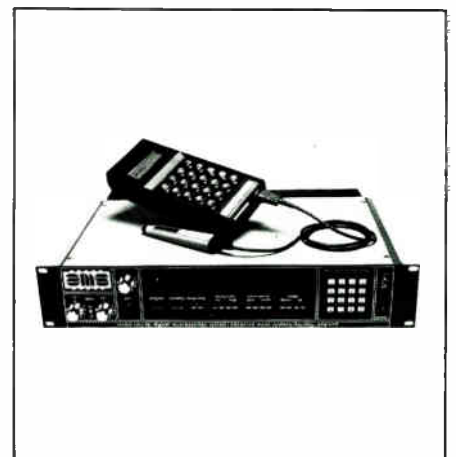
ADA D1280

The ADA D1280 is a digital delay unit designed for studio and live performance applications. The D1280 produces delays of up to 1280 ms at a 15 kHz bandwidth, and features a blinking LED delay rate indicator which varies its flash rate as the delay time is changed. Front panel controls are pro-

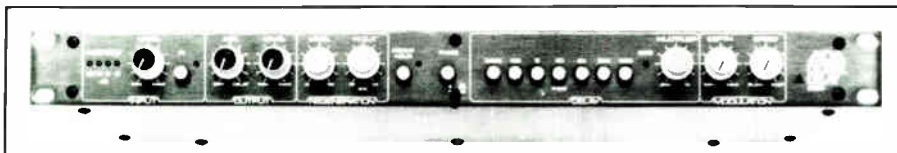
vided for the adjustment of modulation, regeneration, input/output mixing, delay time, phase and repeat hold. The ADA D1280 is priced at \$799.95.

Advanced Music Systems RMX 16

The AMS RMX 16 is a fully programmable digital reverberation



Advanced Music Systems RMX 16



ADA D1280

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The DOD Dual 15 band graphic equalizer R-830A offers quality and performance at an incredible price.

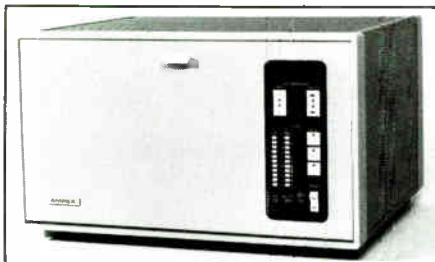
The R-830A was designed for both professional sound reinforcement and studio recording use. With balanced and unbalanced inputs, and outputs, low cut and bypass switches with LED indicators, center detented potentiometers, 12 db of boost or cut, and illuminated power rocker switch, the DOD R-830A offers a great deal of flexibility. The DOD R-830A has two sets of 15 band EQ sliders on 2/3 ISO centers placed at 25, 40, 63, 100, 160, 250, 400, 630, 1K, 1.6K, 2.5K, 4K, 6.3K, 10K, and 16KHz. Each R-830A is individually tested at the factory to insure a high level of reliability, quality and performance.

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Audio Digital TC2



Ampex ADD-1

system. This nine-program, 18 kHz bandwidth unit comes with four standard programs, simulating a variety of environments including large halls and mechanical plates. The RMX 16 operates with a Datasafe handheld remote

terminal, which functions as a controller for new program entry as well as acting as a microcomputer with 99 discrete memory locations. An optical bar code wand attachment reads new AMS software programs for quick loading into the mainframe. The RMX 16, manufactured in Burnley, England, is distributed in the U.S. by Trident (USA) and prices start about \$5,000.

Ampex ADD-1

The Ampex ADD-1 is a two channel digital delay designed specifically for disk mastering preview applications. With preset-selectable delays of up to 5.24 seconds, the unit is totally compatible with normal and half-speed

cutting and allows a mastering speed of up to 30 ips. Inputs are 16 bit digital or balanced line analog (transformerless). The ADD-1 features a wide 5-20,000 Hz bandwidth with a 90 dB dynamic range. An optional sensor is available for scrolling between cuts, and the unit can be rack or cabinet mounted.

Audio Digital TC2

The Audio Digital TC2 digital delay processor is a studio or stage unit offering over one second of delay (20-16,000 Hz bandwidth) which can be internally expanded to over two seconds. A four-digit real-time display on the front panel provides an accurate delay time readout in all modes. Other features include flange/chorus presetting, regeneration controls, VCO effects, balanced or unbalanced inputs, and output mixing. The TC2 is priced at \$1,495.

DeltaLab ADM 1024

The ADM 1024 is the top model of DeltaLab's Effectron digital delay line. As its name implies, the unit allows delay times of up to 1024 ms, with a 20-15,000 Hz bandwidth. This single channel, rack mount unit's front panel is logically laid out, with controls for input

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DeltaLab Research, Inc. ADM 1024	1024ms	None	None	None	No	2 Level LED's	68c	90 Days	\$699.00
Lexicon PCM 41	800ms	None	Rear Panel	Fixed position lo-pass & hi-pass	No	6 Level LED's	\$1.37	1 Year	\$1095.00

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DeltaLab ADM 1024



Dynacord DRS 78

level, regeneration, delay time, infinite repeat, control modulation, and delay output level/phasing. The ADM 1024 is priced at \$699.

Dynacord DRS 78

The Dynacord DRS 78 digital

reverberation system produces delay and echo effects as well as natural sounding reverb. Intended for either studio or stage use, the unit is completely electronic and features a three-digit delay time readout. Delay is adjustable from 7 to 320 ms, with three separate controls. The reverb section allows con-

—from page 82, ECHO

There is no consensus among manufacturers as to cost-effectiveness versus performance as far as word length in DDLs is concerned — it varies from 10 to 16 bits. A 16 bit system is probably better, but certainly much more expensive. A shorter word length can be made quite serviceable with a little analog signal processing to limit conversion requirements, or else mask the noise. Both companding and pre-post-emphasis, as found in analog noise reduction systems, have been used in many DDLs. Companding usually leads to audible noise modulation and that familiar breathing sound. High frequency pre-post-emphasis is a less meddlesome method to reduce noise on the output, but close-miked or other high frequency energy content signals would have to be attenuated 10 or 15 dB below the normal maximum operating level (thus reducing much of the benefit of the pre-post-emphasis) to guard against high frequency overload of the emphasis filters. Hopefully the decreasing cost of conversion will soon make obsolete such band-aid design solutions.

As mentioned, a limitation

common to all digital delay lines is the maximum time delay available for a given RAM size. The maximum delay time can be determined by the formula $T = M/SL$ where T is the time in seconds, M is the amount of RAM in bytes, S is the sampling rate in Hz, and L is the word length in bits. For example, a DDL with a 256K in RAM, sampling at 41 kHz, with a 12 bit converter could accomplish a maximum delay of 520 milliseconds. Clearly, given the performance-determining factors of sampling rate and word length, more time may be purchased only through more RAM. Fortunately, the cost of RAM, particularly dynamic RAM, is falling rapidly.

Since their widespread introduction about ten years ago, DDLs have become glamorized with many additional features and many DDLs now merely form the basis for entire signal processing units. Monaural and stereo units, both with multiple outputs, are common. Advanced designs incorporate such features as floating point PCM encoding and 9 pole Butterworth anti-aliasing filters. Operational features such as flanging, doubling, chorusing, echo, infinite repeat, Doppler and Haas effects, and VCO for time modulation have

—page 88



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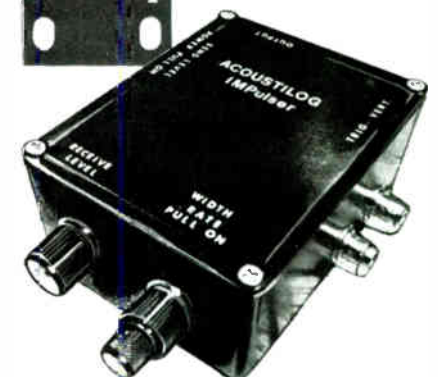
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control of "dead" time, decay, duration, and reverb return parameters. The DRS 78 is priced at \$1,395.

EMT 251

The EMT 251, distributed by Gotham Audio, is a microprocessor controlled digital reverberation system. The unit is unique as it provides, in addition to pure reverberation, up to nine individual reflections, and the time and amplitude of three of these can be indi-

vidually adjusted and panned anywhere into the stereo output image.

A number of effects programs are built into the unit, including chorus, "non-lin" double tracking, doppler reverb pitch shifting, 18 second "space" reverb, and echo/delay (up to 480 ms) programs. A liquid crystal display is provided for the visual representation of all selected parameters. Both reverb-time frequency response and amplitude-time distributions can be simultaneously monitored on the screen. The EMT 251 can also be remotely operated via a DC interface for complete control during automated mixdowns.

Eventide SP 2106

The Eventide SP 2106 is a two channel, digital programmable reverb unit. Up to 3.2 seconds of delay is provided, and a selective band delay effect is available which can separate the signal into several frequency bands, each with its own delay rate. The SP 2106 can accommodate up to 11 ROM effects program chips, and user presets allow over 50 programs to be recalled from memory without changing ROM plug-ins. A "marquee style" alphanumeric readout identifies programs and provides operating/programming assistance from the unit's computer. The

Eventide software subscription service makes the latest programs available to the user. The SP 2106 is priced at \$8,995.

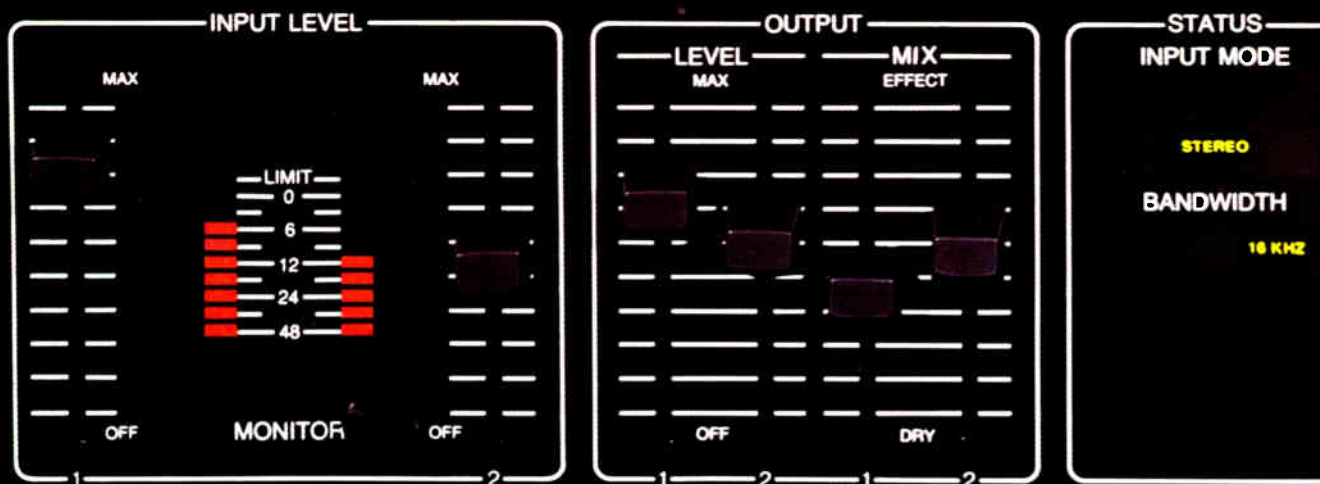
Fostex 3050

The Fostex 3050 is a single channel digital delay line offering up to 237 ms of delay at a bandwidth of 20-12,000 Hz at all settings. Inputs and outputs are -10 dB unbalanced phono (pinjack) type, and stereo outputs are provided. The unit features dry/delay output mixing, LED signal presence/overload indicators, phase reversal, modulation, speed and feedback controls for chorus, flanging and slapback effects, and a counter input for external clock manipulations. The Fostex 3050 is priced at \$450.

Ibanez DM 1000

The Ibanez DM 1000 is a single channel digital delay processor which offers up to 900 ms of delay. The unit's input configuration allows it to be used in studio, sound reinforcement, or direct instrument/microphone applications. Front panel controls are provided for input level/level, delay time, delay modulation, feedback, infinite holding, output mixing, and effect bypass. Col-

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Eventide SP2106



Klark Teknik DN 700

ored LEDs monitor input headroom, bypass, hold, and power status.

Klark-Teknik DN 700

The Klark-Teknik DN 700 Digital Delay Line is designed primarily for engineered sound system applications, including theatres, large amphitheatres, conference centers, and multi-media installations. The unit is a single input device, with three independently-adjustable outputs variable from 0 to 435

ms. The DN 700 has a perpetual memory of all delay settings and features a lock-out system to prevent tampering with the front panel controls. Priced at \$1295, the Klark-Teknik DN 700 can be supplied with transformer-balanced inputs and outputs.

Korg SDD-3000

The Korg SDD-3000 is a programmable digital delay offering up to 1023 ms of delay without the use of an

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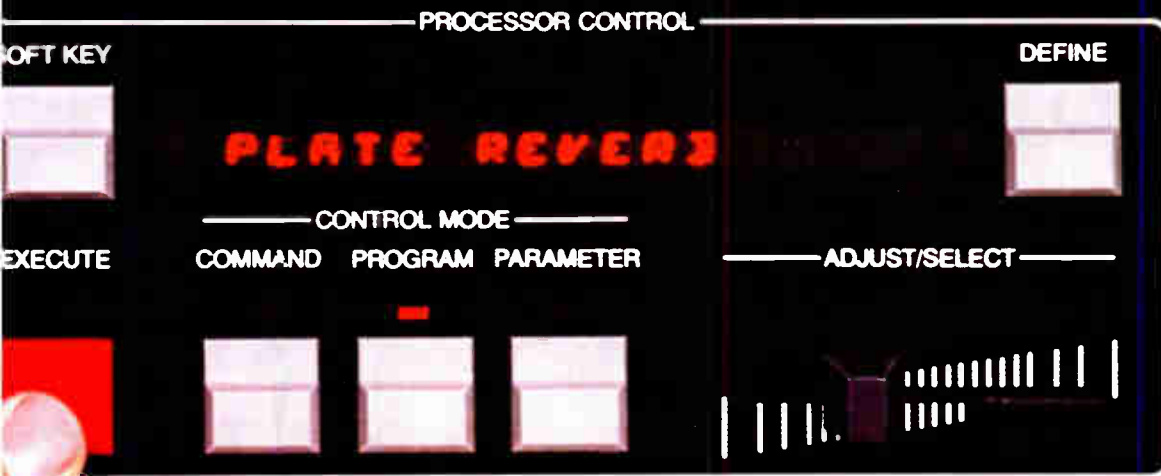
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Korg SDD-3000



Lexicon Model 200

system which was unveiled at the AES convention in Holland. This microprocessor-controlled, two channel rack mount unit offers both factory preset programs and 10 user registers. Selectable programs include concert hall, plate, and chamber reverberation with up to 70 seconds of decay. The model 200's display section includes digital readouts of program selected, pre-delay time, decay time, and a "room size" display, yielding a linear dimension in metres which corresponds to the reverberation program. Other features include switchable pre-echo reflections, reverb diffusion, reverb time contour and rolloff. Inputs and outputs are transformerless balanced, XLR type. Available this summer in the U.S., the Lexicon Model 200 is priced under \$5,000.

MXR Delay System II

The MXR Model 151-1 Delay System II provides up to 3.2 seconds of delay, with digital readout displays for both delay time and bandwidth. The unit features a repeat-hold capability for indefinite musical phrase recycling. The Delay System II also includes controls for sweep speed and width, regeneration, output mixing, dry defeat, delay invert, delay fine tune, and bypass. The

expander module. The unit's built-in microcomputer can store up to nine different programs. Selected program and delay times are shown on a front panel numeric display. Programmable parameters include not only delay time but regeneration, modulation, and output mixing as well. Other features include stereo outputs, feedback equalization, choice of four modulation wave-

forms, infinite hold, input/output attenuators, and front and rear inputs/outputs. Priced at \$1,495, the Korg SDD-3000 is also available with an optional road case.

Lexicon Model 200

The Lexicon Model 200 is a programmable digital reverberation

—from page 85, ECHO

become standard on many models. Other options include pitch changing and an I/O buss to provide for control under a microprocessor system.

Digital Reverberation Systems

As in every other facet of the recording industry, digital technology is making strong inroads into the reverberation market. The fact that digital techniques have proved successful toward the problem of artificial reverberation is testimony to the advanced state of digital technology; the task of accomplishing digital reverberation is quite formidable.

Natural reverberation is caused by the various time delays associated with sound reflecting from the surfaces within a room. At first glance, it would appear to be simple to duplicate a reverberant sound with a number of digital delay lines of varying lengths fed back to each other, and mixed together at their outputs. The fabulous number of delays needed to create good reverberation negates a purely hardware approach and instead necessitates a software technique. Because the programming design is so complex, and the hardware capable of supporting that software is so

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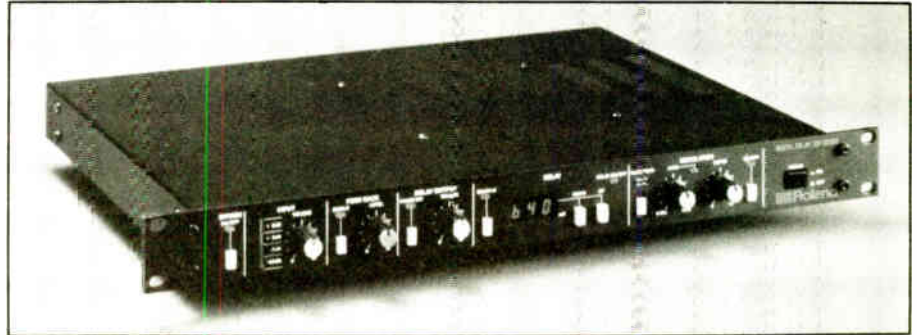
MXR Model 151-1 Delay System II has switchable line/instrument inputs, XLR and 1/4" inputs/outputs, and is priced at \$1,350.



MXR Delay System II

Quantec Room-Simulator

The Quantec Room-Simulator (QRS) is a programmable reverberation/delay device which is capable of producing a reverb density of over 10,000 reflections per second. This microcomputer-controlled unit generates and stores the acoustical characteristics of up to 64 rooms in its non-volatile memory. The QRS includes two inputs, four non-correlating outputs (all balanced XLR type), and provides controls for the adjustment of: first reflection delay/level, pre-delay time/level, high end/low end reverb time, and room size. The 64 programs are key-pad-addressable and indicated by the unit's digital readouts, which also display all effect parameters. The Quantec Room-Simulator is distributed by Sound Design Industries.



Roland SDE-2000

Roland SDE-2000

The Roland SDE-2000 provides up to 640 ms of digital delay, selectable by two switches which vary

the delay time up or down in 1 ms increments. An LED display shows the exact delay setting. The unit's modulation section offers a choice of two different waveforms, sine and triangle, as well as rate, depth, and modulator in/

out. Other features include a feedback section with a single repeat mode, output mixing, repeat hold, and remote jacks. The SDE-2000 is priced at \$1,150.

sophisticated, commercial digital reverberation units remained impractical until 1978.

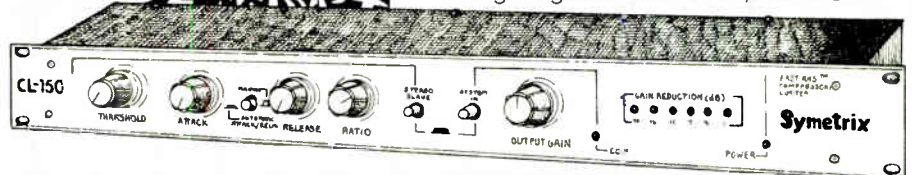
The magnitude of the task—each reflection, resonance, attenuation, etc., must be designed and programmed into the system—means that even simple reverberant fields require extensive programming for successful digital simulation. But that burden also opens tremendous possibilities in reverberation design. Any heuristic reverberation characteristic, including ones never before achievable mechanically, or even acoustically, can now be synthesized. While it would be slightly impractical for users to program all of their own reflections, higher level software can give the user direct control over many program parameters to achieve an unprecedented degree of variance over the reverberation effect. For example, these parameters may include adjustable pre-delays, pre-echoes each with variable level and delay, controllable decay rate in various parts of the frequency range, differentiation controls between reverberation patterns at the front and rear of a simulated environment, or even the option of simulating other artificial reverberation devices (just imagine —

—page 90



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Ursa Major 8x32

Sequential Circuits Pro-Fx

The Pro-Fx effects system from Sequential Circuits is a modular, programmable system consisting of a Model 500 mainframe controller which can store 64 programs for up to 30 effects modules. Currently available modules include Phase Shifter, Distortion, 4x2 Mixer, Parametric EQ, Analog Reverb, Transpose/Sync, Flanger Chorus, and the Model 524 Digital Delay Module. The 524 provides up to two seconds of delay, adjustable to within one millisecond and monitored on an LED display, which also tracks modulation. External modulation and regeneration jacks enable additional signal processors to be added into the mod/regen loops. The regeneration section has high/low EQ

control and the modulation section has three source waveforms. The Model 500 mainframe is priced at \$995, and the Model 524 digital delay is \$1,200.

Sony DRE 2000

The Sony DRE 2000 is a micro-computer-based digital reverberator which provides a variety of reverberation, echo, and time delay effects. The DRE 2000 consists of a rack-mountable main unit and a remote control unit which contains a data entry keypad, numeric reverb and delay displays, and all control parameters. The system is compatible with both digital and analog audio gear. Four reverberation, two echo, and two delay modes are available, with up to 9.9 seconds of reverb and 999 ms of echo/delay. A maximum

—from page 89

for only \$20,000 you can imitate a guitar spring). Favorite reverberation characteristics can be collected in a ROM library and users will have access to program software subscription service to insure the currency of their effects. Clearly, with digital processing, the simple days of decay time and mix balance are over. The recording engineer will face a great many more parameter decisions, and will have the opportunity to precisely define his simulated acoustic environment.

As I've noted, digital reverberation is quite an accomplishment to implement. The design concept itself, however, is straightforward and elegant. The initial processing is identical to that used in DDLs; the CPU counts off sequential RAM addresses, looping through the RAM and simultaneously issuing WRITE instructions. Data is thus stored for a certain time until ousted by new information. Between WRITE instructions, READ instructions are issued to displaced addresses; that address difference determines the delay time. For digital reverberation the stored signal must be both read out and repeatedly scaled by factors less than unity for damping. The scaled signals must be added together and re-entered into the looping

memory to achieve the effect of super-imposed reflections of decreasing intensity. A good digital reverberation unit might contain twenty or more such feedback channels. Because of the many multiplications required, parallel structures of eight-bit micro-processors might be used to handle the load. A word length of 48 bits, for example, can handle many processing steps simultaneously.

Digital reverberation and delay techniques have quickly captured the lead in the ambient processing market. Although devices such as tape devices offer low cost alternatives, springs and plates more than adequately meet professional criteria, and natural chambers remain the ultimate in prestige reverberation, the future lies with digital processors. Their ability to synthesize an outstanding natural reverberation for a reasonable cost and their potential to creatively fashion entirely new ambient effects guarantees their eventual supremacy. Moreover, the power of digital reverberation devices to simulate the other types of devices insures that in time they will be the only reverberation device in the studio. How can you win against a computer that artificially creates everyone else's artificial reverberation devices?

of ten different user programs can be stored in the unit's non-volatile memory for later repeat/recall. Factory reverb programs include "spring," "plate," "typical concert hall," and a unique fourth program. Inputs and outputs are balanced analog or 16 bit digital, and the 10 metre separation between the main unit and the remote can be extended up to 100 metres with an optional adapter. The Sony DRE 2000 is priced at \$15,000.

Ursa Major 8X32

The Ursa Major 8X32 is a programmable digital reverberation system which features four master programs (plate 1 & 2, hall, and space) as well as up to 64 non-volatile user programs. The unit provides full simultaneous control and numeric display of seven reverberation parameters: early reflections—delay time and level; initial reverberation—delay and level; and reverb decay time with separate LF and HF decay. Reflection and reverb delay range up to 96 ms, while up to 20 seconds of decay time is available. Input mute and reverb clear switches are also provided for extra control over long decay times. A full-function remote control unit is optional. Prices for the Ursa Major 8X32 begin about \$6,000. ■



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—From page 64, *FAGEN*

was because we'd both moved from California back to New York, where we both started out. And the move took a while and we were getting settled and we just took a long break where we weren't writing.

MIX: Can you tell us a little of how you and Walter first began working together in music?

FAGEN: Well, we started out working in New York as studio musicians and as songwriters as well. I guess the first time we went into the studio was on Terence Boylan's first album. He went to school with me and Walter. He and his brother John went to Bard College and they were there when we were there. They had a group called The Gingermen, which was quite a good group, and when that broke up Terry went on to make the album on his own (with us).

MIX: How did you end up as staff songwriters for ABC Records?

FAGEN: Gary Katz got a job as a staff producer for ABC Records in Los Angeles and sort of browbeat the president of ABC into hiring us as staffers.

MIX: Were the three of you always a team?

FAGEN: Yeah, back in New York we did a lot of projects, none of which ever got off the ground. So when he got a job out there he sent for us and we started working as staff writers out there.

MIX: When was it clear to you and Walter and Gary and ABC that there should be a Steely Dan?

FAGEN: Although we were supposed to be writing songs for ABC artists, I guess we spent most of the time writing stuff that was more personal. We needed a vehicle for display, so the logical thing was to get a band together. So, we called up musicians we knew and threw it together rather quickly. We originally had a singer named David Palmer and although he was a good singer, we thought he couldn't quite get the attitude across, so I ended up as the singer without having any professional experience as a singer. And that has led to the peculiar situation I'm in today.

MIX: You never set out to be rock stars, did you?

FAGEN: We set out to put a band together. I never set out to front a band; that happened by default, really.

MIX: Was Steely Dan always a joint venture between you and Walter or did you write separately as Lennon and McCartney mostly did?

FAGEN: Oh no. I don't think we ever wrote a song independently of each other. We always worked on all of them together. When we started out,

he had a bunch of songs and I had a bunch of songs and we just sort of put them together, but after a while we leveled off into this way of working whereby I would come up with the main musical concept and then Walter would come over and kick it around and then we'd work on the lyrics together.

MIX: Mark Knopler of Dire Straits, who appeared on *Gaucho*, told me that working with you was too clinical and that he'd rather make a record with the Ramones. Do you ever feel



PHOTO: JAMES HAMILTON

your recordings are that way?

FAGEN: I think about it, but since I don't have a live working band, there's not much I can do about it. Although, I think of records as being something completely different from live music. If you do it right you shouldn't lose any of the energy. Occasionally you will. But I always try to keep the energy level up and I think over the years I've gotten some great performances from the musicians.

MIX: Would you say the recording studio is really home for you? Are you most comfortable there?

FAGEN: Yeah, I am. It's actually a lot like my parent's house. It's got wall to wall carpeting and Swedish furniture and so on [laughs]. Actually, it's a lot like home.

MIX: You've done a lot of your stuff at Soundworks in New York. Do you prefer that studio over others?

FAGEN: Well, they've got a very good rate.

MIX: You're not serious about that, are you?

FAGEN: Actually, I am. The rate is the main criteria I use to pick studios. As long as everything is working properly and there's good maintenance, to me what matters most is the people who run the place. You know, if they're helpful. The people who run Soundworks are really terrific. As to

the sound of the room and everything, since we close mike everything and go for a dead room sound anyway, I think I could make records that sound about the same anywhere. The rate is important. It's definitely a big factor.

MIX: What are you planning for the immediate future?

FAGEN: I've been doing some writing for another solo album. I did something for a Martin Scorsese film (King of Comedy) with David Sanborn. Also, I may write a tune for Diana Ross.

MIX: There are those ugly rumours once again about tours. Are they true?

FAGEN: I've been thinking of doing some local things around New York City, but certainly no tours.

MIX: Why wasn't there a video made for *The Nightfly*? Aren't you interested in that medium?

FAGEN: Well, they just released a single of "The New Frontier" and they're doing an animated video of that. The animator seemed very excited about doing it. I guess the lyrics lend themselves to that kind of thing. As for myself, I'm not interested in video. I just don't worry about it. It may indeed change the market, but I'm mainly interested in records.

When you listen to a record you have to bring you imagination to it. It's more interesting to me to hear pure music. I don't need any visual imagery to go along with it, especially if it's like the kind you see on MTV.

MIX: Will your albums in the future attempt to disassociate yourself from the Steely Dan sound, or will they be sort of a continuation of that concept, as *The Nightfly* was?

FAGEN: I don't know. I really don't think about it. All I know is that when I write a song all I think about is that it is pleasing to me. I really don't think about how I'm going to disassociate myself from this or that sound, for instance. It's not that important to me. All I care about is that it's good music.

MIX: What is Walter doing now?

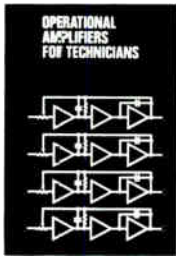
FAGEN: He's doing some production work for Warner Brothers. I'm not quite sure what.

MIX: What about that lucrative record deal that Steely Dan signed with Warner Brothers prior to *Gaucho*? Are your solo albums fulfilling that agreement?

FAGEN: Well, I'm trying to do that now. We (Warner Brothers and myself) have been working under the Steely Dan agreement. The thing is that the agreement was signed such a long time ago that it sort of didn't apply.

MIX: Do you and Walter have any desire or plans to work together again?
FAGEN: It's possible. We kind of left it open. Maybe a couple of years down the line. ■

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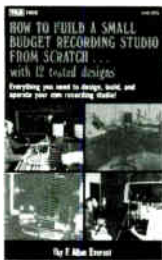
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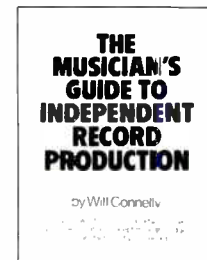
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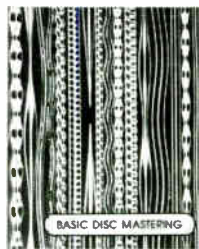
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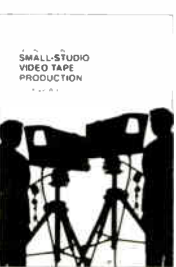
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Gag Me with a Bassoon!

Frank Zappa Conducts Varese;
Phil Lesh Listens

When the San Francisco Contemporary Music Players announced a benefit performance featuring the works of Edgard Varese and Anton Webern—with two of the Varese pieces to be conducted by none other than Frank Zappa—I undertook to review the concert in collaboration with another rock artist who, like Zappa, is a devotee of the “new music.”

Zappa’s music is a curious combination of puerile verbal satires and often sophisticated music, with influences beyond the usual rock, jazz and blues idioms. The February 9 concert at the War Memorial Opera House in San Francisco was his chance to present his “roots” to fans who are unlikely to encounter it in their usual pop media.

Phil Lesh, bassist with the Grateful Dead, studied classical music all his life and composed some rather ambitious pieces himself before he cast his lot in with the Dead’s interdisciplinary musical and social experiment. His interest in the subject is still quite strong, so he agreed to review the concert with me. What follows is a brief excerpt from a very spirited dialogue which ranged beyond the specifics of the concert.



PHOTO: JOHN INZEY

Mix: Was there anything more than their common birth year—and the fact that they both fall under the rubric of “iconoclast”—to link Varese and Webern in last night’s program?

Lesh: Musically speaking, not really.

Surprisingly, I found the Webern to be more musical. It’s difficult to find the musical impulse in it, to hear its flow. But the two sets of Webern vocals (*Six Lieder*, for soprano, clarinet, bass clarinet, violin and cello; and *Three Lieder*, for soprano and piano) and the *Offrandes* of Varese—along with Webern’s Bach transcriptions—were the most successful of the evening, because you can

hang your heart on the vocal line.

It’s very expressive—“Every day the yellow sun comes over the hill, beautiful is the forest, the black beast, man hunter or shepherd. With a reddish glow the fish rises in the green pond . . .”—but presented in the most concentrated possible way. Those are some of the shortest pieces ever written.

But somehow, the Bach (Webern, *Fuga (Ricercata) a sei voci, No. 2*, from the “Musical Offering” by J.S. Bach) was the key to the whole program. It carries the weight of tradition, and Bach’s thematic technique is somehow perfectly suited for that *Klangfarbenmelodie* (literally, “tone color melody”) technique, where Webern took a melody that you would expect to hear played by one instrument and split it up. He’d have the first two notes played by, say, the bassoon, and the second note doubled by the oboe; the third note would be played by the oboe alone, the fourth by the oboe and clarinet, and so on.

The idea is that these tone colors are supposed to blend together so the melodic line is heard as a whole. Ideally, it should pass from one instrument to the next in a totally smooth way, so you and I as listeners don’t even notice that there are several instruments playing it. But it’s too easy to hear it as being split up, and that was the problem with the performance, although they came pretty close.

Mix: It presents an interesting philo-

Welcome to The Far Side

Quasimodo’s in his bell tower reading a book called *Careers in Computers*. A gang of robber rabbits

takes the pistols away from a stagecoach driver and his guard, and while the hapless pair stand with their hands in the air one says to the other, “This ain’t gonna look good on our report, Leroy.” A family of dogs sits at a table eating dinner; the mother scolds one of her pups, “I’m not warning you again, Sparky! You chew with your mouth OPEN!”

You’ve just entered the exquisitely bent world of Gary Larson, whose cartoon *The Far Side* begins in *Music Notes* this issue. Fortunately for us, among the anthropomorphic animals, flipfopped clichés and other wonderfully bizarre themes recurring in Larson’s world are flying pianos, musical revenge and other musical items.

Larson, a Seattle resident, started with the *Seattle Times* and has been syndicated by Chronicle Features since 1980. The first collection of his cartoons, *The Far Side*, was published last year (Andrews and McMeel, Inc., \$3.95).

—David Gans

THE FAR SIDE

By GARY LARSON



Correction:

Last month in the photo caption for the Carlos Santana session story we inadvertently reversed Jerry Wexler’s and Barry Beckett’s names. Sorry guys.

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—From 94, Zappa

sophical question, too, doesn't it? *Klangfarbenmelodie* attempts to democratize orchestration in much the same way twelve-tone music destroys the hierarchy of harmony. Every instrument has equal weight, but it takes away from each individual's ability to express—

Lesh: That's understood. That is the problem.

Mix: It also requires that each musician concentrate harder.

Lesh: That's a problem, too. There's no continuity, as far as they're concerned.

Mix: So despite the fact that Bach's melodies are strong enough to withstand decimation and distribution, if it is technically impossible for humans to perform it, then where does that leave the Webern transcription? Is it an ideological exercise, an architectural exercise—a purely theoretical thing?

Lesh: There have been musicians who have derived more pleasure from reading the open score—that is, no instrumental details at all, just melodies on paper—than from hearing any realization.

Mix: But how good is a piece of work if it can't be performed? Who are you pleasing if the only people who can get it are theoreticians?

Lesh: Some people just read it and put it aside, and then use whatever they got from it in their own work. It's not so much an end product as raw material for the next generation.

There was a period of time in the middle of this century when musicians felt that they had to express themselves in—let's say expressionistic—ways, or else none of their peers would listen to them.

Mix: Ah, the esoteric imperative.

Lesh: Yes. They were not interested in the audience; they knew already that they didn't have an audience.

Mix: The further behind you left the rubes, the hipper you were, right?

Lesh: Yeah. It's too bad, but it's true.

Mix: After *Ionisation* you said, "It's not rhythmically that interesting at all—the play of tone colors and dynamics is what it's all about." But we also agreed that the performance wasn't particularly dynamic or inspired.

Lesh: It's really terrible to say this, but I didn't get the feeling that the musicians—or Frank Zappa, or even [Jean-Louis] LeRoux himself, who's the boss of the whole organization—really have this music in their hearts. They seemed to

be going through the motions "because we have to do this for contemporary music." The best thing I learned as an orchestral musician was to make it musical, make it sing, make it *real*—no matter what. You can't get that out of people who are just playing a gig.

Mix: That music's so hard to get a handle on that it demands to be played with spirit. If Zappa's intention was to get his fans in there and turn them on to his heroes, then he owed them a more attractive performance of it.

Lesh: Here's one thing that might be a factor: It seems as though the way we listen to music these days is conditioned heavily by the fact that we've been listening to electric music for over 20 years now. Electric music comes right out and envelops you—you don't have to listen *in* to it. It could be that I'm not used to listening *in* to things any more, and that's why it sounded so wimpy to me.

I think it was also partly because of the acoustics of the Opera House. It's not a good place for chamber music, and that's what we're talking about here.

Mix: But you can tell from the way the notes are attacked whether musicians are playing with gusto. And nobody was blowing very seriously until the last piece, *Integrales*. It didn't seem consistent with what the music should be doing, because this seems like pretty bombastic music.

Lesh: Webern, believe me, is not bombastic. Varese, yes.

Mix: Why do you suppose *Poeme Electronique* worked so much better than any of the live pieces last night?

Lesh: That's a good question. Could it have been that we weren't ready to listen to those other pieces?

Even so, I didn't see a lot of people walking out. Did it seem to you that there were a lot of Zappophiles there?

Mix: Yes, and some of them behaved like real yahoos, too. Zappa's such a multifarious guy that he attracts—

Lesh: Weirdos—

Mix: —who like his music for the unsophisticated lyrics behind all that sophisticated music.

Lesh: But they stayed anyway. And even if the artistic merit of the concert was less than its commercial intent, the San Francisco Contemporary Music Players need money, and it's a good thing that Frank Zappa has enough of a sense of humor to allow himself to be used like that.

—David Gans



PHOTO: ION SHVARTZ

Juju Wows Berkeleyites

King Sunny Adé and His African Beats. Zellerbach Auditorium, University of California, Berkeley. February 25, 1983.

Are American pop audiences ready to open their ears to a rhythmically complex sound from a continent about which they know little and whose songs are sung in a foreign tongue? More specifically, will Nigeria's Sunny Adé do for African pop music what Bob Marley did for reggae a decade ago? Although the sudden boomlet of Western interest in King Sunny Adé—and African pop in general—may prove to be short-lived, at the very least Americans are in for some daring challenges to their musical proclivities.

Adé and his 17-member band, who performed for over two hours before an ecstatic sold-out crowd, play *juju* music: A Nigerian folk music whose origins date back to the 1920s, *juju* began changing in the postwar era with the introduction of electric guitars and the increasing influence of Western blues, rock, soul, calypso and reggae (jazz and funk, also influences in Africa, appear to play a more significant role in Afrobeat, another contemporary style, popularized by Fela Anikulapo-Kuti in particular).

Based on the call-and-response between vocals, guitars, and drums and percussion—all of which are represented in abundance—*juju* music is a thick-textured weave of rhythms and melodies. When Adé and his band played hard-edged and propulsive songs, with the entire ensemble on stage undulating to the beat(s), the effect on the audience was to induce instant dancing.

But Adé's music has a soft side

as well, one shown to good effect on his U.S. debut album, *Juju Music* (Mango Records, MLPS 9712), released last year. There the gentle, lilting melodies, delicate guitar patterns floating against each other, and Adé's sweet, high-pitched singing took precedence over his live show's emphasis on movement and explosiveness.

As played by Adé and His African Beats, juju sounds both exotic and familiar. The chord structures and time signatures vary widely from standard Western pop genres. But the electric guitars (Fender Strats seem to be the most popular) and Western musical influences bring the sound back home a bit. The slurred, hollow-toned sound of pedal steel guitar is utilized to marvelous effect, suggesting that it fits in as well in Lagos as it does in Nashville or Honolulu.

West African rhythms have also grown steadily in influence among such Western groups as Talking Heads and the English Beat—and before them drummers Ginger Baker and Mick Fleetwood. Chris Blackwell's Island Records—the label that brought Bob Marley and reggae music to the U.S. (Mango is an Island subsidiary)—has released two excellent samplers of contemporary African music, *Sound D'Afrique* (West Africa) and *Sound D'Afrique II* (Central Africa) in the last two years. But most significantly, Island was signed Nigeria's two reigning stars of juju music, Adé and Ebenezer Obey. And as was the case with Marley and reggae, Sunny Adé's first U.S. tour and album have been accompanied by a fanfare of publicity and acclaim.

And well they should be, because Adé is a musician with undeniable international appeal. He is a star of major proportions not only in Nigeria, but throughout the African continent. Since 1966 he has recorded over 40 albums, most of which have sold more than 100,000 copies each. *Juju Music* was recorded at Otadi Studio in Lome in the West African country of Togo, then mixed in Island Records' Hammer-smith Studios in London. The result is a modern-sounding recording, one that incorporates recently developed production styles such as Jamaican dub (check out "Ja Funmi").

American audiences raised largely on a 4/4 beat aren't likely to fall under the spell of all those polyrhythms right away. And while Adé's messages of love and peace might have wider appeal than, say, reggae's uncompromising militancy, the Yoruba language in which he sings them doesn't. But, as Adé told his Berkeley audience, for all who wish to listen "the music speaks for itself."
—Bruce Dancis



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MUTABARUKA

Check It!

Alligator Records, AL 8306

Recorded at Tuff Gong Studios, Kingston, Jamaica; produced by Earl "Chinna" Smith and Mutabaruka; engineered by Errol Brown, Stephen Stewart and Chow.

The voice cries out in the darkness, a darkness created by the spare dub reggae sound of bass meeting African drums. Later, traces of keyboards and an ice-tinged guitar enter the mix along with a chorus of female background voices as the poet lets loose the rage of Africans stolen from their homeland centuries ago.

The bitter message of "Whey Mi Belong?" is familiar to all who have listened to Jamaican reggae, but the voice and the stunning instrumental mix make *Check It!* a decidedly fresh and compelling album. The voice belongs to 30 year old dub poet Mutabaruka and the able assistance is provided by reggae's foremost guitarist and co-producer Earl "Chinna" Smith, plus such formidable talents as Wailers drummers Carlton Barrett, percussionist Sydney Wolfe and noted multi-keyboardist Augustus Pablo.

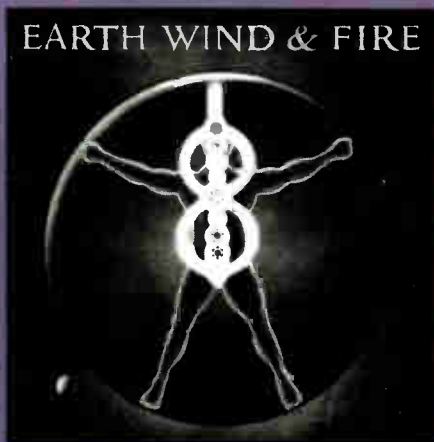
Prior to Mutabaruka, the only poet operating within reggae to have any impact in this country was Linton Kwesi Johnson. Johnson, who hails from London's West Indian community of Brixton (though born in Jamaica), has released three albums in the U.S. — *Dread Beat An' Blood* (orig. 1978; 1981, Heartbeat Records), *Forces of Victory* (1979, Mango Records) and *Bass Culture* (1980, Mango). The dub poets share the influence of dub "toastmasters," of DJs, who deliver spoken/sung raps on top of an ever-changing instrumental mix. The poets, however, tend to be less confined to conventional song structures than the toastmasters.

Mutabaruka's strong imagery and impassioned views cover such themes as the legacy of black slavery, international affairs and other Rastafarian concerns. But the surging rhythms of his poetry and the power of his delivery meet their match in the music surrounding them. Much of the credit belongs to Smith, the most widely recorded guitarist in reggae history, lead guitarist and producer of Soul Syndicate and founder of the new High Times label in Kingston, Jamaica. Smith wisely underplays the arrangements so as to fully bring out the poet's passionate vocals.

And the supporting players, working at Bob Marley's Tuff Gong Studios, share Smith's conviction that restraint often offers greater rewards than continual intervention. The result is that when any instrument enters a song—such as Pablo's melodica on "Witeman Country"—it becomes, in effect, another voice lending concise commentary to Mutabaruka's words.

Check It! is the first release on the High Times label. (High Times, Ltd., P.O. Box 529, Kingston Mall, Jamaica, W.I.; Chicago's Alligator Records is the U.S. outlet.) Founded to give exposure to talented Jamaicans who have been neglected by the international record companies, *Check It!* is a bold and brilliant place to start.

—Bruce Dancis



POWERLIGHT

Earth, Wind and Fire

TC 38367

Produced by Orlando Imala; engineered by Robert Spano and Steve Crimmel; recorded at Complex Studios, West Los Angeles, and Ocean Way Recording Studio, Hollywood; mastered at A&M Recording Studios by Bernie Grundman

Earth, Wind and Fire's nucleus and guiding light, Maurice White, once drew an analogy between his group and the achievements of that nonpareil pop group from Liverpool. The prime reason that EW&F were not as popular as the Beatles, claimed White, was his band's avoidance of drug lore and flippant attitudes. Which is partially true; where the Beatles strewed their later work with semi-hallucinogenic references and strange talespinning ("Happiness Is a Warm Gun," etc.), the EW&F superstructure has been based on a vaguely ecumenical belief in Utopia. No salty English wit clouds the air in a lyric like "Let the people see/ the children hold/ the key/ The earth will turn/ the sun will rise, in their eyes."

Of course, the Beatles projected their own share of faith in man's ultimate worth, particularly through John Lennon's sturdy idealism, but the pop world has rarely given such a hero's welcome to a group of such unfiltered optimism as EW&F. *Powerlight* is brimming over with said sentiments, but the lyrics may be the least significant ingredient involved here. It is their most musically riveting work since the sterling achieve-

ments of *All and All* and *I Am*. In EW&F's decade of musicmaking, they've done with R&B what the Beatles managed to do with pop: by deploying an array of influences and evocative instrumentation, the end music is one of grand poetry.

In EW&F's case, the poetry is hypnotically groove-worthy. Like the rite implications of their name, EW&F spare nothing to construct their musical statements. *Powerlight* ripples with the group's trademarks: rocksteady, immutable rhythm beds grounding a taut patchwork of vocals—mostly Maurice White's virile pipes embellished by a remarkable chorus line of backups—and if horn charts could kill! The group's indelible impact on the fabric of soul music is really a multi-faceted one; as inventive as the musical and harmonic elements are, their last several albums have been true marvels of production. Although the credits on *Powerlight* read like the phone book of a small township, the cast of tens never results in production overkill. A place for everything and everything in its place.

Guitarist Roland Bautista has rejoined the band after several years' absence and demonstrates his vast improvement as a player with a sizzling solo on "Fall in Love with Me," the album's initial single, which illustrates the formula in motion. Opening with keyboardist Larry Dunn's somewhat manic synthesizer prelude, the song locks fiercely into groove, with Dunn's appropriated synth motif recurring throughout the tune. It grows with concentric energy, as vocals build in density and are woven through with trumpet-heavy horn parts. The foliage clears out for Bautista's solo, and the keen attention to tension and release keeps a slow fire brewing through the tune. Later on side one is "Side by Side," a driving medium ballad (a contradiction that this group can make work) with a similar musical roadmap—through thick and thin—but this time highlighted by an emotionally apt steel drum solo by Robert Greenidge.

Ethnomusicology has always played a part in the group's sound and principle of universal oneness. And here, a tabla solo by the renowned Zakir Hussein that segues into the balladic "Straight from the Heart," and the signature kalimba passage that closes side one are not off-handed gimmicks but atmospheric signposts that clue the group's conceptual pilot light. There can be no question that funk is EW&F's bottom line, but often their striding and undaunted grooves (listen to drummers Maurice and Fred White's almost cymbal-less plowing) are lubricants for the musical complexities carrying on atop the rhythm. One of the album's gems is "Speed of Love" which blasts into earshot with a fat, woody horn chord, into a groove spiced with the persistent 16th note anticipations that again characterizes the EW&F magic. The tune has a few hooks other than its repeated chorus; Jerry Hey's horn charts set the stage ideally, Donald Myrick's sonically-treated sax solo recalls the harmonica sonorities of Lee Oskar, and, in a bit of form following function, the sustained word "love" at the end of the chorus is sped up, launched into orbit via a Variable Speed Oscillator. Let it not be said that this band has no narrative imagination.

They're amazing ballads is again spotlighted on "Freedom of Choice" and the alluring "Something Special," his sensitive painting of heart ached from subtle comments under the vocals to whimsical licks that turn your head around, are musical counterpoints in themselves. "Something Special," in particular, showcases the scarp vocal assets of Maurice White. A sort of urgent medium groove melodic Basista's guitar part is Bowie's "Fame", the tune lays itself down around White's inspired raving. He commences in his strutting lower range and, as sparkly backup vocals set a layered, staircase effect below, he bops in range and intensity. But soul is always his modus operandi. In a casting solo spot, White shifts from wordless leaps to Saichmo-like growling and is staggeringly convincing. On "Heart to Heart" a two-chord vamp blossoms into a descending set of jazz-based chord changes in the chorus, ascending skyward with vocals and Dunn's soft synthesizer patch.

Unfortunately, the album's failed effort comes at the close of the album. "Miracles" is a crassness poem to the possibility of a better world. Not a bad thought, but the piece turns from an innocent ballad to an over-theatrical production number with a choir of children singing the wailing chorus, made disjointed by an odd bar thrown in for crisscross measure. Or maybe these ears are just too jaded to buy such open-ended optimism.

Whether or not you subscribe to EW&F's underpinning of spirituality, their collective musical thrust is winning and uplifting to a degree that transcends the specifics of their world view. And, just as the heat remains after the words are gone, words have a hard time doing justice to this music. It hits the gut, not the cerebrum.

As the rock and pop establishments are quickly assimilating black music into their purview and much of the current state-of-the-funk seems triggered by Prince's chilling, leering and insular rock-funk, EW&F stick to their guns. *Powerlight* is an encouraging and uncompromising work, a model of production sophistication and taste. EW&F's claim to soul has to do with a tangible feeling of a family affair. They've wisely refrained from the Hollywood concessions of their past couple of albums—yes, they, like everybody else in the industry, have employed the Toto syndicate. On their own musical feet here, produced by White, EW&F fall into their own God-granted groove. The group's musical miracle, getting utterly down while looking always onward and upward.

—Josef Woodard

New and Noteworthy

Fantasy Records has reissued 40 titles from the Riverside and Prestige catalogs under the name *Original Jazz Classics*. These remastered albums are packaged in their original jackets and priced at \$5.98 each. Titles include *Theonious Monk*, *Theonious Monk Trio*, *Monk Plays Duke Ellington*; Miles Davis, *Dig*, *The Musings of Miles*; Wes Montgomery, *Incredible Jazz Guitar*; Sonny Rollins, *Worktime* and more by these and other artists. ■



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PREVIEW



ORBAN 536A DE-ESSER

Orban of San Francisco, CA, announces the availability of a new, two-channel De-Esser, the Model 536A. The 536A has circuitry to provide constant de-essing with input levels which vary as much as 15 dB. De-essing is adjusted with a single threshold control per channel. Dual LEDs provide accurate indication of de-essing action. A click-free in/out switch allows de-essing to be introduced at any time during the program without audible side effects. Active balanced inputs and outputs are standard with a transformer output option. The Model 536A will sell for \$539.

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FOSTEX A-8LR RECORDER

Fostex Corporation has unveiled the A-8LR, an updated version of their A-8 1/4" eight track recorder/reproducer. The new model is capable of full 8 track simultaneous recording, while the A-8 can only record four tracks at a time. The A-8LR is designed for special applications, such as remote recording, while the A-8 will continue to be offered for the large musician/songwriter market. The A-8LR carries a list price of \$2,500.

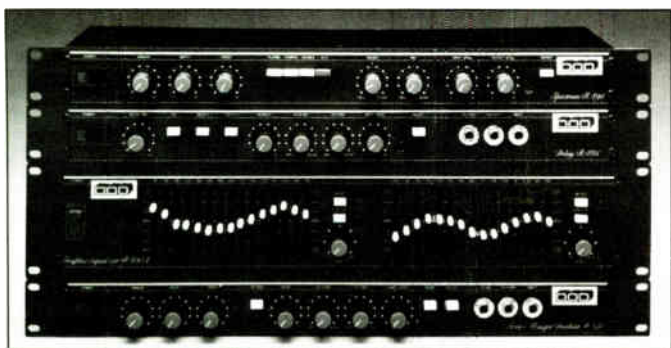
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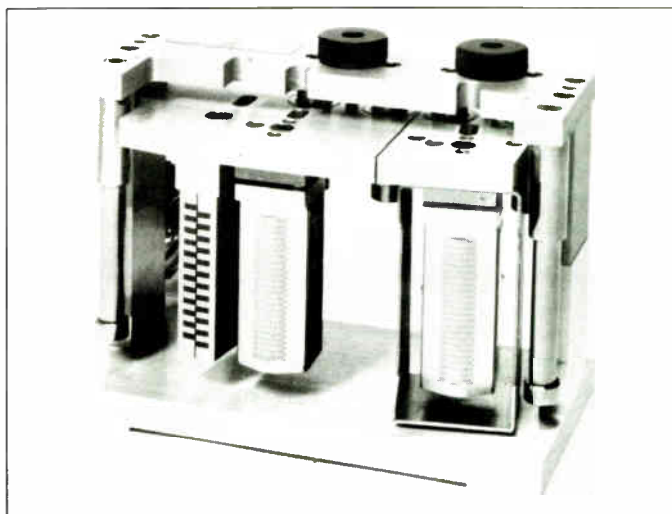


DOD 800 SERIES RACK

DOD Electronics has introduced a new line of professional equipment which will replace existing 800 Series rack units and expand the line with several new units. The redesigned chassis will house improved electronics and components; however, pricing on the new models will remain largely unchanged.

Units will be designated as follows: R815A 15 band EQ; R830A Dual 15 band EQ; R831A 31 band EQ; R825 Compressor-limiter; R835 Crossover; R875 Flanger Doubler; R885 Analog Delay; R895 Spectrum; R900 Digital Delay.

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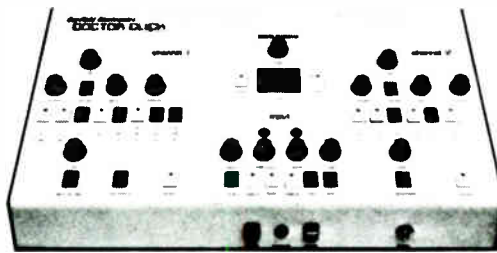
The Doctor Click Rhythm Controller makes it possible for the first time to synchronize the world of sequencer, drum machine, synthesizer composition with any one of the systems on the market or combinations of the systems on the market. Furthermore, the Doctor Click will cause sequencers, drum machines and synthesizers to play in time with a human drummer. It will also read click tracks and sync codes. The internal metronome provides both beats per minute and frames per beat calibrations.

THE DOCTOR CLICK RHYTHM CONTROLLER BREAKS THE BRAND BARRIER

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DSX	Bass Line TB303	Linn LM-1	CR5000	Prophet 5	Modular Moog Juno 6
Prophet 10	CSQ600	LinnDrum	CR8000	Prophet 10	OBX Juno 60
Polysequencer	SH101	DMX	CR68	Prophet 600	OBXa Polysix
Pro One	Emulator	Drumulator	CR78	Prophet T8	OB8 Poly 61
Model 800	Fairlight	TR808	KPR-77	Minimoog	JP4 Voyetra-8
Microcomposer MC4	Synclavier	Drumatics TR606		Memorymoog	JP8
Chroma					

*(VCA, VCF, VCO, Gate, Trigger or Arpeggiator as provided on each unit.)

Measures
17½" x 11" x 4½" x 2½"
Weight is 8 pounds.



Warranty is one year.
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ONE DOCTOR CLICK CONTAINS ALL OF THESE PROBLEM SOLVING DEVICES

- 4 Fixed Clock Outputs
 - 2 Variable Clock Outputs
 - 2 Metronomes
 - 2 FSK Sync Code Decoders
- (Covers Linn, Oberheim, Roland)

- 2 Rhythm Envelopes
- Pulse Counter
- Pulse Shaper
- Gate Output

- Headphone/Speaker Output
- Roland 5 Pin DIN Sync Output
- External Clock Input
- Footswitch Controls

The brand to brand problems of timebase, voltage level and polarity are solved by the Doctor Click's diverse output capability.

The ability of the Doctor Click to connect to many units at once coupled with its footswitch control capability makes it ideal for multiple sequencer, drum machine, synthesizer live applications.

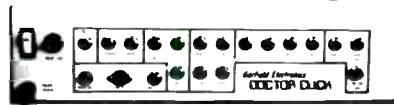
Since the Doctor Click metronome produces beats per minute and frames per beat calibrations it is always convenient to get just the tempo you need. It is even possible to get fractional tempos such as 118½ beats per minute.

The Doctor Click's two independent rhythm actuated envelopes allow VCF, VCA and VCO parameters of synthesizers to be modulated in 32 rhythm values ranging from four measure cycle to 64th note triplet with variable attack, decay, sustain and amount. This eliminates the problem of rhythmic drift when using a conventional LFO.

The ability of the Doctor Click to transform metronome click tracks into timebase clocks allows frames per beat music film work to be

done with virtually any sequencer, drum machine or synthesizer. The ability of the Doctor Click to read live tracks allows sequencers, drum machines and synthesizers to play in sync with the varying tempos of a human drummer or a built click track. The ability of the Doctor Click to accept external clocking or either of the types of FSK sync to tape codes allows sequencers, drum machines and synthesizers to be synced to any existing track. The pulse shaper circuit turns a pulse from an instrument into a trigger waveform allowing synthesizers to sync to a drum fill. The headphone output allows click tracks in multiples of the tempo to be generated and is capable of driving a speaker. The pulse counter can be used to program sequencers in higher timebases, quickly combining greater rhythmic resolution with step programming accuracy. The step programming switch can be used to step program sequencers that normally do not have this capability.

Used on tracks by Brian Banks, Tony Basil, John Berkman, Michael Boddicker, Kim Carnes, Suzanne Ciani, Joe Conlan, Chris Cross, Bill Cuomo, Jim Cypherd, Paul Delph, Barry DeVorzon, Don Felder, Paul Fox, Dominic Frontier, Terry Fryer, Albhy Galuten, Lou Garisto, Herbie Hancock, Johnny Harris, Hawk, James Horner, Thelma Houston, Michael Jackson, Quincy Jones, Jeffrey Kawalek, Gordon Lightfoot, Jerry Lilledahl, Johnny Mandel, Manhattan Transfer, Paul Marcus, Jason Miles, NBC Movie of the Week, Randy Newman, Keith Olsen, Paramount, Joel Peskin, Oscar Peterson, Greg Phillingaines, Jean-Luc Ponte, Steve Porcaro, Phil Ramone, Lee Ritenour, Steve Schaeffer, Mike Sembello, Mark Shifman, John Steinhoff, Sound Arts, Ian Underwood, Universal, Donna Washington, Stevie Winwood, Pia Zadora.

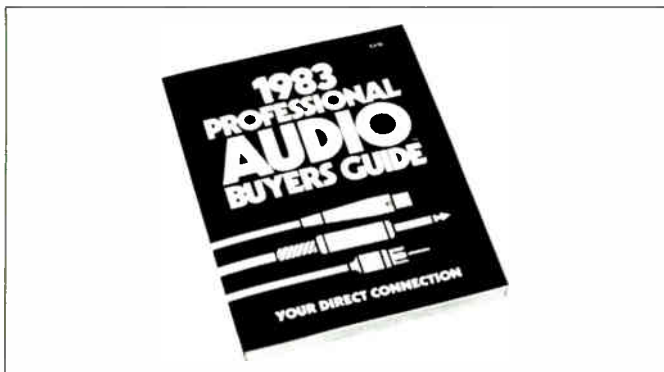


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wrap and track placement (height). The Promix II is specifically designed to reduce tape machine alignment time as well as simplify magnetic head maintenance. The complete package includes a special new assembly cover with hinged top for easy access.

Currently the Promix II is available to fit most MCI JH series multi-track tape machines.

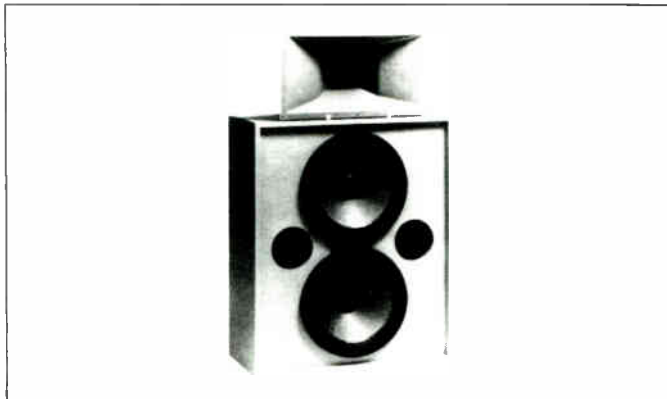
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The 1983 Professional Audio Buyers Guide has just been published by SIE Publishing, Westlake Village, California. This revised and expanded second edition lists a complete range of products from over 70 manufacturers of PA and recording equipment, represented by product pictures, model numbers, features, specs, prices, and a cross-referenced index. Price is \$9.95.

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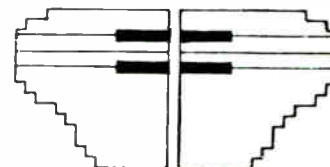
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VIDEO NEWS

by Mia Amato

STEVE BECK: Computers for Art, Games as a Business

The video world knows Steve Beck as an artist. His poetic short works done on an analog video synthesizer, such as "Union," "Cycles," and "Video Weavings," evoke phosphenes, phosgenes, and meditative states. This is the man who also runs a microcomputer design firm in the basement of a hotel in Oakland, California?

"I've always consciously moved to fuse art and business," claims Beck. "If you look at the great painters of this century - Kandinsky was a lawyer, Cezanne was a shopkeeper. The music industry is much more comfortable with that concept, though, than the visual arts."

One clue to Beck's 21st Century style is the business card for his company, *Beck-Tech*. It lists two phone numbers, one for "Voice," the other for "Modem." In the studio beneath the fading balustrades of the Claremont Hotel, Beck's staff of software specialists design computer circuitry by day. After hours, they collaborate on music videodisk projects, laser light shows, and video art.

"Nowadays we're heavily into video games," he says. "Games are a great point of fusion for electronic music and video art. More so because the money is there."

The firm's entry into this \$8 bil-

lion-a-year market is an offshoot of Beck's video art experimentation on a synthesizer called the Video Weaver. "In 1974 I licensed some of the synthesizer technology to *National Semiconductor Corporation* to develop programmable video game chips, and that's how we got into the game world." Marketed games include a sophisticated horoscope computer and a musical-tone matching game sold by *Kenner* under a *Star Wars* logo. On the boards are art and health care software for the *Atari* home computer.

"There are about twelve million Atari game systems in homes, which makes it the largest selling computer that's ever been built. Think about that," he remarked, while demonstrating his latest video game cassette, "Save the Whales," released in April through *20th Century Fox Games*. The objective is to protect a pod of smiling, candy-colored whales from harpoons and other hazards. "It's a game with a conscience," he says, using a joystick to manipulate a little yellow submarine on screen. "Those black bars are oil slicks. . . well, I've already lost, 'cause I was burned by radioactive waste."

Beck takes out the game cassette and switches to a videotape of his commissioned work for the *Jimi Hendrix* videodisk project.

"I'd always been a fan. When I was doing video synthesis experiments in the sixties I frequently put on Hendrix' albums and composed stuff to it. But it was impossible to get the rights to the music. And then there

was no home video market at all. I've had to wait fifteen years for the world to catch up to what I wanted to do."

The Hendrix project involves unreleased live recordings and is being produced jointly by *Alan Douglas*, who has music rights to the Hendrix estate, *Stewart Shapiro* of *ATI Equities*, and *Electronic Arts Intermix*, which distributes the work of Beck and other video artists who are working on the disk, such as *Kit Fitzgerald*, *John Sanborn*, and *Shalom Gorewitz*.

Beck created visuals for two cuts, "Are You Experienced?" and "Voodoo Child."

"Are You Experienced?" was visualized in real time using a video synthesizer and Apple computer. "I had about fifty different animation programs running on the Apple, which could be selected by hitting a key," Beck explains. "My right hand was on the keyboard of the Apple, and my left hand on the colorizing and texturizing controls of the synthesizer."

In the result, the best take of four days' work, thrusting, magma-like explosions of color illustrate the lengthy guitar solos. In contrast, "Voodoo Child" was completed a segment at a time and edited together at *Positive Video* in Orinda, California for a denser, complex pattern of mask imagery. Visual shapes are more important to Beck than exotic colors; he routinely plays back footage on a black and white monitor. "If it's not interesting in black and white, I wouldn't release it."

Part of Beck's commission was

obtaining the music rights so he can release these tapes on other formats besides the initial CED-version for RCA.

I'm doing a video album of my own work through Pioneer (Artists) for a release in Japan on the laser format, and this will be on it."

Would Beck ever do video promos? "There's not enough money in it," he explains. "Compared to the computer and game industry, promos are just pocket change." He's far more interested in composing electronic music for a dance opera based on Hopi creation myths, a collaboration with *Ballet West* in Salt Lake City. Last month he was in Belgium, designing a computer animation system for a textile design firm in Brussels. In March, Beck-Tech presented a laser-light show in the rotunda dome of San Francisco's City Hall. Then there is *Electron*, a three-piece audio and video synthesizer orchestra, which has had three public performances.

"I'm hoping to do a musical piece with *Herbie Hancock*. He was up here at the Claremont a few years ago, and we chat a lot on *The Source*, an electronic mail computer network. I may do something for his new album."

CABLE REPORT: ART Down, Access Up

So much for highbrow programming by satellite: *The Entertainment Channel* folds but a few months after the death of CBS Cable. Can *ARTS* be far behind?

Franchises for the unwired New York City boroughs were finally awarded, though in jigsaw fashion. *Cablevision* gets part of the Bronx and part of Brooklyn. *Warner Amex* gets part of the Bronx, part of Queens. The rest of Queens is split between *STC* (a Time, Inc. subsidiary) and minority-owned *Inner City Unity*. *Continental* and *Cox* share Staten Island. Once the digging and wiring are over, there will be six more local programming operations in the New York area and lots of channel space to fill . . . eventually.

The National Cable Television Association (*NCTA*) holds its annual convention in Houston June 12-15. Call 202/775-3550 for details. Cable system owners reacted angrily to a proposed increase in fees paid out in return for carrying TV station signals from neighboring cities. Besides an *NCTA* lawsuit—a tactic to delay payments—many operators yanked the distant-city signals off their channels and replaced them with ad-supported satellite programming such as *MTV*

and *Sportschannel*. *Ted Turner*, whose Atlanta "superstation" *WTBS* was dropped from twenty systems, filed with the FCC for an exemption from the distant-city fee increase, evidently preferring a small loss in fee revenues to the larger loss, in cable terms, of nearly one million viewing homes.

FAST FAX FACTS

The concert-style clips for *Fahrenheit* and *Jack Mack & the Heart Attack* were taped at *Skaggs Telecommunications* in Salt Lake City. *Circuit Rider Video* has opened its doors in Windsor, California, providing 3/4" format location production and editing. *Southwest Teleproductions* and *Midcom's* 24 track audio truck, both based in Dallas, handled the live *Willie Nelson* uplink for this year's televised Grammys. The satellite connection was *Robert Wold Communications*.

POSTCARD CITY

Joe Rees estimates he'll be "somewhere in Denmark or Sweden" by the time you read this, as he and *Target Video* are in the midst of their seventh European tour. Armed with an *Aquastar* video projector and a suitcase full of videotaped performances by American rock bands, *Target* presented 52 screenings last year in bars, nightclubs and student unions in Paris, Milan, Berlin, etc.

Rees is also taping European acts abroad for future screenings here (the current tour kicked off in March with screenings in New York and Boston).

In the past, Rees says the group has been able to get up to "a thousand dollars a night" for club screenings. Although some of the presentations have been in art galleries (the tapes include work by performance artist Mark Pauline and Rees' distinctive news-footage montage pieces) he's found the club audiences "very eager to see American videos and American music."

Rees also credits some of the road show's success to the assistance of *Gerard Drecq*, a disk jockey at France's "most progressive" government-owned radio station, *Radio Nova*. *Drecq* has helped arrange for bookings; he is presently working on a video festival at Cannes which will run concurrently with the Film Festival this month. Rees will be assisting in tape selection for the festival and will also be teaching a two-week class in video music production at the University at Reims.

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What are video producers looking for? Is there now or is there ever to be a '45' of video?

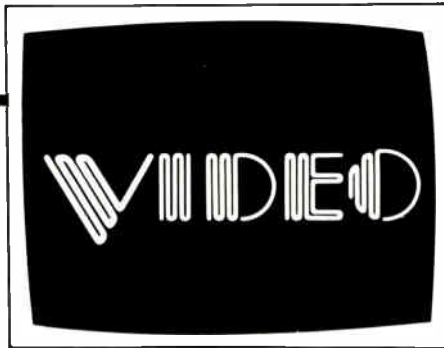
Flipping TV channels is enough to demonstrate just what the formats of video have been. That change of monikers from TV to video is hardly enough to mask the fact that much video of the future will continue to resemble the TV of the past and present. For the audio/video creator with accent on the "aud," the germaine part of that TV present and future has a lot to do with music. And so, one other Big Q: What is changing, musically, as TV changes to video?

Just bringing up the subject of a video 45 brings Warner Communications' MTV to most people's minds. That's at least partly because other rock programming video services have been having problems getting off the ground. VideoMusic Channel, The Pop Network, Rockast, and others have either bitten the dust or are doing all they can not to. Even at MTV, according to chief engineer Kevin Hamburger, "they're hoping to show a profit in two or three years." With a top-20 format and current reach of 7 million homes, MTV may be more an experiment to be learned from than a real market for video music.

"MTV is a possibility for major exposure," says Dan Davis, VP of creative services/film and video production at Capitol Records. "But we wouldn't produce anything specifically for MTV at this time. We're dealing with an industry that's an infant. Our real interest is for the promotion of a record."

And even from within the Warner empire, Jo Bergman, director of TV and video for Warner Bros. Records, says, "People who work in video departments of record companies do believe video has a positive effect on record sales, but no one knows for sure."

Clearly, the video promo of a hit rock single, which *looks* like it should be the 45 of video, shares no other characteristics with vinyl 45s. No one buys or rents three to five minute video-cassettes, and no one is likely to in the near future, either. Video-disk is another matter, but there



INTERFACE

THE 45 OF VIDEO

by Neal Weinstock

are currently only about 200,000 players in American homes. RCA's consumer electronics VP Jack Sauter estimates that hardware owners buy about 18 disks a year - most of which being movies that last about two hours and sell for around \$25.

Here things begin to look up, in the Long-Playing mode of it all. If we assume that a one hour A/V album would sell for some fraction of that \$25, and further assume generously that it would sell three times the platters that a movie does. Extending our assumptions to 400,000 players as a

universe for 1983 and considering RCA selling those 18 disks per player (from a catalog of 200), this all comes to an estimated income of \$1.6 million, to be divided between preser/distributor and producer and talent. This does not include other income from distribution on cassette. In other words, start expecting a few more intrepid producers to take a shot at the videodisk in '83.

As reported in Video News, Sony has announced a program to produce video singles, up to fifteen minutes in length for \$15.95. This is another innovative long range project from Sony to hype their Beta format, and could be quite interesting to producers with Sony claiming it will pay all legal, mastering, advertising, marketing, distribution, and promotion. Interesting, yes, but promising? Well, legal costs should prove to be very high, mastering is more expensive on video than on vinyl, hardware manufacturer Sony's total ad budget is rather small compared to a major label's, their distribution is to hi-fi and video stores (not prime movers of records or even video software), and this is just one of many competing new software projects on Sony's part. And \$15.95? Interesting, yes, but no promises.

Which brings us to other formats for presenting music on video, such as more widely accepted, narrative formats. Or rather, formats in which the visuals hold the narrative, not the music. Even if a video 45 does emerge, traditional TV narrative shows no signs of brooking any competition as the TV LP. Rock and country half-hour or hour length programs, whether on broadcast or cable, are consistently out-Nielsened and out-Arbitroned by movies old and new. There are, obviously, many expectations; but what audio-type, who's ever worked on both film production and sound for sound's sake, would contest the simple fact that the largest of record budgets would fund only a low budget movie? Clearly, more money will continue to flow into story-telling film and video production, for the foreseeable future, than into music video.

That leaves those recording studios who want to get into video with the option of recording music, narration, post-synched dialog, sound effects, and any other audio post-production for film and video. A very large option indeed: film and video producers have shown a definite recognition of their need for better audio post production. Enterprising audio studios are hastening to fill that gap of expertise. Outfitting portable post-production audio studios in converted trucks is an increasingly common path—about a dozen of these have been sprouted from recording studios around the country. It's a natural step for an audio studio that's been doing post-pro for films. And it's even more natural, for any audio studio that's already equipped for on-location concert recording or reinforcement, to expand that truck for post-pro. The next natural step from audio post-pro is video post-pro in the same truck, which can be a real convenience for a production.

Trucks have advantages and disadvantages, as anybody who has ever worked in one knows. Most production people choose a studio over a truck anytime, but on many locations there's no choice. A look at how locations are used in your area will help determine how important portability is. Producers' needs tend to be regionally determined, to a great extent.

What are producers looking for? A hit formula, as always. But, as never before, there seem to be no formulas for hits now operative. Which is not a bad thing, when you get down to it; it makes room for fresh ideas and new people. Including, of course, all readers of this.

PRODUCT REVIEWS

Enerlite Marathon 10

The Enerlite Marathon 10 is a 3.5 pound NiCad power pack that sells for \$169.95, fits onto a belt-loop, and will run a ½" format VCR for four to eight hours. Enerlite says the battery is good for 1,000 to 1,500 charging cycles, cannot be damaged if over-charged or left discharged, and has a flame retardant housing.

Actually, the Enerlite 10 will work with any 12-volt appliance, and power it longer and more reliably than any other comparably sized NiCad pack this reviewer is aware of. In practice, it powered a JVC KY-2700 camera and Sony VO-3800 recorder for about two hours. Enerlite is located in Troy, MI.

TEAC V-1000AB-N

For those dune buggy shoots when a standard U-matic VCR seems a little flimsy, TEAC now makes what they call an Airborne Videocassette Tape Recorder. Actually designed for Air Force pilot training and flight testing, this is the most rugged of ¾" format VCRs. It features one video and two audio channels, with all the capabilities of any high class recorder — and it also tolerates shock, vibration, acceleration, and low atmospheric pressure without encasement (but it may require external shock mounting).

Audiotel Scanlock 2000

How many times has a sinister cabal from across the Pacific pirated one of your sessions and released it via K-Tel before you even finished your mix? Well, it may never happen again, with the Audiotel Scanlock 2000.

Audiotel International is a London-based company with offices also in Ft. Washington, MD, under the name Technical Services Agency. The Scanlock 2000 will scan every conceivable radio band to discover hidden transmitting microphones. It is portable (about 9 x 14 x 4 inches and weighs 2 pounds) and runs off both AC and DC. Other powerful radio signals can't block out the signal you're looking for: the Scanlock 2000 reads second and third best signals, too. The unit is also good for determining if you have AC sync, and if your phone is bugged.

COMING IN AUGUST

Studio Design

An indepth look at the latest in acoustical practice, design theory and applied technology in the recording environment; with listings of studio designers, consultants and equipment dealers. Equipment report: Cassette decks

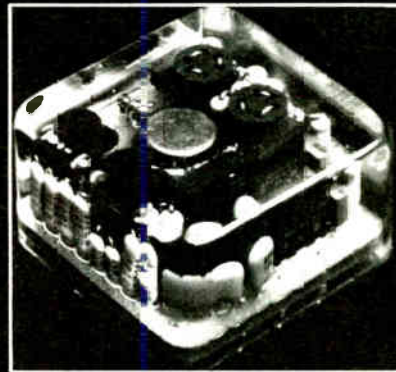
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ADVERTISERS INDEX

PAGE ADVERTISER

69 ACES USA
85 Acoustilog
84 A/DA
46 Adams-Smith
12 Amek Systems & Control
7 Amerimex
27 Ampex MTD
28 Analogique
56 API/Datatronix
97 Aspen Music Festival
17 Audioarts Engineering
61 Audio Services Corporation
19 Auditronics
91 Boogie Hotel Studios
91 Bryston
31 Center for the Media Arts
66 Chestnut Hill Audio
97 College for Recording Arts
102 Computers and Music
63 DMI
111 DeltaLab
23 Digital by Dickinson
49 Diskmakers
83 DOD Electronics Corp.
51 DSL Pro Audio

PAGE ADVERTISER

32-33 Electro-Voice
86-87 Eventide Clockworks
105 Filament Pro Audio
47 Frankford/Wayne Mastering Labs
101 Garfield Electronics
88 Gotham Audio Corp.
107 The Hardy Company
2 Harrison Systems
37 Harvey Professional Audio/Video
52, 53 Hill Audio
99 IAN Communications Group
38 Institute of Audio Research
21 ITT Cannon Electric
64 Jensen Transformers
75 JRF Company
90 Linear & Digital Systems
67 Masterdisk Corporation
54 Master Sound Productions
11 Rupert Neve Incorporated
99 New World
4 Otari Corporation
49 Platinum Factory
61 Polyline Corporation
5 Pro Audio Systems
72 Professional Recording & Sound

PAGE ADVERTISER

75 Rane Corporation
73 Record Plant Remotes
70 Recording & Broadcast Supply
22 Regent Sound Studios
54 Resolution
47 Restoration
65 RolandCorp US
66 Saki Magnetics
78 SFX
43 Shelton Leigh Palmer & Co.
77 SIE Publishing
28 Sigma Sound Studios
95 Simmons Group Centre
B/C Soundcraft Electronics
103 Spectra Sonics
78 Spectrum Fidelity Magnetics
9 Studier Revox
89 Symetrix
24 Syncro Sound Studios
80-81 Syntauri Corporation
15 Tascam
41, 45 Telex Communications
51 Trutone Records Disc Mastering Labs
20 Valley Audio

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