Producer Quincy Jones

Studio Monitors

LAB REPORI: Carver PM-1.5 Power Amplifier

01003448600

0285

058

D.POMEROY 193 BALTIC BROOKLYN

ST

NY

11201

RECORDING TECHN How To Record Your Band On A Budget

PRACTICAL MUSIC VIDE Picturization and Editing

FEBRUARY 1985 VOL 11 NO. 2 \$2.25

47947

CLARINETIST RICHARD STOLTZMAN

www.americanradiohistory.com

MODERN

& MUSIC



Mathx#12



www.americanradiohistorv.com

MODERN RECORDING & MUSIC

FEATURES

8 RECORDING TECHNIQUES

by Bruce Bartlett

Are you interested in recording your own quality demo tapes? Fortunately there is a way! This month Mr. Bartlett concentrates on how those on a budget can make surprisingly good recordings.

13 PRACTICAL MUSIC VIDEO PRODUCTION

by Denny Andersen

The artistic aspects of editing are detailed in the sixth installment of MR&M's guide to music video.

24 QUINCY JONES: PRODUCES SIGHT AND SOUND

by Craig Anderton

Quincy Jones hardly needs a formal introduction here! This is a man who has been in the business for 35 years and has been involved in everything from jazz to R&B to rock n' roll. Quincy Jones has worked with such greats as Count Basie and Duke Ellington, recorded with Louis Armstrong, produced R&B artists like Ray Charles and Aretha Franklin. In the 80's he has worked his magic with the likes of Michael Jackson among others. Now Quincy is also adding film projects to his list of accomplishments! MR&M was lucky enough to catch up with Quincy and have a heart to heart talk on his past and present projects.

32 CLARINETIST RICHARD STOLTZMAN: PROFILE

by Gene Kalbacher

Richard Stoltzman, the first clarinetist ever to perform a recital in Carnegie Hall, has made several solo albums which include works by Beethoven and Mozart in addition to seven albums with the cham-





ber ensemble TASHI. Now he has made the amazing crossover from classical to jazz devoting large segments of his performances to music from the late Thelonious Monk, *MR&M* met with Stoltzman and discussed this turning point in his career plus what might just be lying ahead for this Grammy-winning clarinetist.

SOUND IDEAS

STUDIO NOTEBOOK

18

54

by Jim Rupert Four insurance musts for the studio owner.

LAB REPORT

by Len Feldman The Carver PM-1.5 Power Amplifier and the Bryston 4B Pro Power Amplifier.

DEPARTMENTS

TALKBACK Ask us a question, we'll tell you no lies.

MARKETPLACE

& MUSIC

Reviews of the latest albums by Jean-Luc Ponty, Steve Miller, Tom Verlaine, Pat Metheny, and others.

1/4 NOTES

70

60

64

Who's making tracks and where are they going?

AD INDEX





JEFF TAMARKIN Editor

RITA WOLCOTT Associate Editor

JAMES CORONA Technical Editor

JOHN EARGLE Technical Advisor

DENNY ANDERSEN CRAIG ANDERTON BRUCE BARTLETT SUSAN BOREY RICK CHINN LEN FELDMAN VICKI GREENLEAF BOB GROSSWEINER GENE KALBACHER KEN POHLMANN JAMES RUPERT Contributing Editors

MARTIN BASCH MICHAEL FISHMAN ROB HOERBURGER NORMAN WEINSTEIN Record Reviewers

MERV KATZ National Advertising Director

> KAREN COHN Layout and Design

> SUSAN MONAHAN Circulation

SPARTAN PHOTOTYPE CO. Typographers

> ELAINE ZIDE Associate Publisher

> > LARRY ZIDE Publisher

Video Advice

It's good to see that MR&M is getting into video production techniques! I have a question about the consumer-grade video equipment that is available. One of the members in my band has a portable stereo VHS recorder, and a fairly good camera. Both units are made by Panasonic. On the side of the camera there is a multi-pin connector. The owner's manual says "for editor." Is it possible to use these jacks for synchronization with other cameras, VTR's, audio recorders, video switchers, and editors? Are editors and switchers available for these decks? Hats off to MR&M and Video!

> -Jim Tasto St. Cloud, MN

We received the following reply from our resident video production expert Denny Andersen.

In general, consumer-grade "home" VCR's and cameras are not set up for editing or for multi-camera production via a switcher. Panasonic and other manufacturers do make "industrial-quality" half-inch video gear for non-broadcast, small-format studio applications, but it's expensive. Your best bet is to find such a studio and either book time or wangle some kind of free access.

Now, to answer your specific question: according to Michael Maggio at Panasonic, the multi-pin jack you describe appears on some older model cameras, marked "auxiliary connector for future use." This connector is designed to interface with an optional character generator, Panasonic model PKG-900. (A character generator lets you type letters onto the screen—handy for titles and credits.) The connector *won't* work as an interface with switchers or editors.

Recording Knowledge

I am an amateur musician and I have invested in some multi-track equipment. I now own a Tascam M-30 mixer and a Tascam 34 recorder. Even though the instructions that come with the M-30 are very clear I am still quite puzzled as to the operation of the board. I have no experience whatsoever with this type of equipment and find that Tascam's manuals are written for someone with some basic knowledge of multi-track recording. Can you supply any information on this type or do you know of any book that would be of help to me? I need articles that explain what I need to know in a very basic manner so I can make sense out of the manuals I now have.

We received the following reply from Merlyn Morgan who's the National Service Coordinator at TEAC.

We are glad you have decided to invest in our multitrack products, the M 30 mixing console and the 34 multi-track tape recorder. The design of these products is based on use by professional recording engineers and musicians. Since you are, as you mention in your letter, a novice to the recording process, we recommend the following publications to acquaint yourself with common practice and procedures: Handbook of Multichannel Recording by Alton Everest and Modern Recording Techniques by Robert Ronstein. Both of these volumes are listed in your Model-30 manual. Contact the publisher for availability. We also recommend the pamphlet, Are You Ready For Multitrack? It is available at no charge directly from TEAC. Perhaps the best source of all, however is Modern

First, you have to hear yourself!

Now Journey depends on new ATM63 cynamic microphones for full control of their monitor and live concert sound. With better rejection of not just offaxis sound, but everything else on stage. Even with a stack of Marshalls up close, the monitor mix is cleaner, with better separation than ever before.

Mnd cut what Journey's Steve Perry, Jonathan Cain, Neal Schon, Ross Valory, and Steve Smith heard on stage...and why monitor mixer Chris Tervit and producer/live mixer Kevin Elson insist on the ATM63. Now at leading music and sound specialists.

The ATM63

chosen by JOURNEY because...

When you sound right to yourself, you sound great to everyone!



Audio-Technica U.S., Inc., 1221 Commerce Dr. Stow, OH 44224 • (216) 686-2600

Circle 12 cn Reader Service Card

Recording & Music. This magazine has been a key ingredient in the multi-channel school of recording. It has printed many excellent articles on the process of mic'ing, recording and mixing for both professionals and amateurs. These articles have discussed all aspects of the process from sound source to finished master. We recommend this publication as a beginning or enrichment to your understanding of the recording process.

Safe Proximity

I've recently purchased a digital drummer (a Yamaha Model RX-15). In my home bedroom corner studio, the digital drummer sits quite close to my four-track reelto-reel. My question is this: When I demagnetize my tape deck, will the proximity of the demagnetizer to the digital drummer create any problems in the drummer's digital circuitry? Of course both units are off when doing this, but will it

Blow Their Socks Off With Gauss Efficiency

All Gauss *loud*speakers are designed to give you high conversion efficiency. A fancy way of saying they give you more power per watt...so you get the sound pressure you want with a smaller number of cabinets and amplifiers. You don't have to lose your socks to pay for all that sound!

Gauss speakers are also built to be the world's most reliable *loud*speakers. Our exclusive double spider construction and our ten minute torture test on *every* Gauss *loudspeaker* assure you of that. So, you know they will keep knocking your audiences' socks off for years after you buy them

There's a Gauss *louds*peaker to fit every professional need from 10"....

to an 18" that handles 400 watts... to our 200 watt coaxial designed to knock the socks off recording engineers. For more information on the entire Gauss line, see your authorized Gauss dealer or write Cetec Gauss, 9130 Glenoaks Blvd., Sun Valley, CA 91352, (213) 875-1900, Telex: 194 989 CETEC.

More Power Per Watt

by Cetec



affect the drummer's memory? Will there be any long term or accumulative effects that may occur? I have been moving the drummer when demagnetizing, but this is a pain as the drummer is connected to a patch bay and its AC power line is bundled with other AC lines. Thank you for any information on this subject.

> -Lorr Safratowich Billings, MT

Have no fear! We contacted Yamaha's technical department and were informed that no damage to your RX-15 Digital Drummer would occur if you demagnetized your tape machine in close proximity to the instrument itself.

Mic'ing Arrangement

I've written before and you have answered. Thank you kindly. Once more I have a problem. The following is my situation: I am mic'ing drums and using the following equipment-2 overhead mics, 2 on side toms, 2 on front toms, 1 on hjhat, 1 on kick, 1 on snare, etc. I am trying really hard to get clean tracks on the kick, snare, and hihat! I use Valley People's Kepex and Gain Brain on the snare and kick; they never work out and I can never get them clean! Could you tell me how to arrange the Kepex and Gain Brain in the chain? What settings and what quality of sound will I get? Thank you for all your help.

-Bill Montello Warwick, R.I.

We received the following reply from Mike Morgan, vice president of Technical Operations at Valley People, Inc.

Mr. Montello's question regarding the use of Kepex II and Gain Brain II while recording a drum kit provides the opportunity to address a common problem and hopefully, to clarify some of the finer points of processor usage. For the uninitiated, the Valley People Kepex II is a KEyable Program EXpander, and the Gain Brain II is a compressor/limiter. Both devices feature adjustable threshold, ratio. attack time, release time, and selectable release envelope shape. When used as a processor for instruments producing waveforms exhibiting high crest factors and extremely wide dynamic range, such as drums, **FEBRUARY 1985**

Circle 13 on Reader Service Card



CARVER Powerful · Musical · Accurate

11

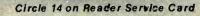
all all the set

RVER

POWERFUL

Congratulations to Clair Brothers and thanks for taking us along on the tour.

1 14



CORPORATION 19210 33rd Avenue West, Lynnwood, WA 98036 MUSICAL ACCURATE

www.americanradiohistory.com

cymbals, bells, etc., the Kepex II is generally configured as a gate having a relatively short attack time, let's say between .02 and .2 ms, and a moderate release time, possibly .25 to 1 ms/20 dB. The ratio (slope) should be rather high, from 1:5 to 1:100. Range or maximum attenuation may be adjusted from 20 dB to 80 dB.

The Kepex II is a level sensitive device, that is, its expansion occurs relative to an adjustable threshold level in such a way that an input signal or keying signal above the threshold setting causes the device to turn fully on (unity gain) with attenuation occurring when the input or keying signal falls below the threshold setting. It is imperative. then, that there exists a sufficient level difference between the desired instrument at the microphone (the snare, for example) and the leakage from surrounding sources so that the Kepex II will pass the desired signal dependably, thus proper microphone selection and placement is important. A common misconception concerning expanders and noise gates is that they inherently distinguish "their" instruments or tracks from others: not so! When such a device is "on." it.

passes everything present at its input, and that includes leakage. noise, distortion, and hum. They are only useful because of their ability to *expand* the *difference* in volume level existing between the desired instrument and undesirable extraneous sounds; one cannot expect any expander or gate to create a signal out of nothing, or to selectively isolate one instrument among many of equal or nearly equal level appearing at its input. This is a task for much more sophisticated EQ/expander combinations which are beyond the scope of this commentary.

Concerning the use of the Gain Brain II. or indeed any compressor/ limiter when miking a drum kit, a good rule of thumb is, "less is best." The preferred method of use with percussion instruments is as a limiter. thus the best settings would probably have a reasonably fast release time. say .1 s to 1 s, an attack time which will preserve the drum's high crest factor. or "snap," say, from .6 s to 6 s, a high ratio from 6 to infinity, and a high threshold, +10 dB or greater. In this configuration, probably no gain should be added, so keep the gain control at 0.

When using the two processors. Kepex II and Gain Brain II together for tracking a drum kit, the Kepex should be fed directly from the microphone preamp output patch point, the Gain Brain should be fed directly by the Kepex, and the output of the Gain Brain should be returned to the pre-EQ or pre-fader line return, as desired. If the microphone selection and placement is correct, the resulting action of the Kepex will be to "tighten" the drums by separating the signals from the various microphones, by modifying the decay of the drum, if desired, and by use of the Gain Brain, to accentuate the "snap" or to smooth the attack by varying the attack time settings.

Generation Gap

Thanks for the stimulating article on microphone techniques for recording classical music (September 1984). A nit to pick: In the section on Andrew Kazdin a statement was made to the effect that there is no generation loss with digital. This is not true; at least as long as the mixing is being done in the analog domain.

> —Steven Graham Ann Arbor, MI

Bruce Bartlett sent this reply.

Thanks, Steven. We'd better clarify this point for our readers. If you mix microphone signals directly to a twotrack tape recorder (analog or digital), the signal goes through the console *once*. But if you use a multi-track machine for tracking and a two-track for recording the mixdown, the signal goes through the console *twice*: once during tracking and once during mixdown. As a result, console colorations (noise, distortion, phase shift, frequency-response errors) are greater with the two-step process.

This additive mixer coloration can be eliminated if the microphone signals are sent directly to the multitrack machine from the mic preamp outputs, rather than from the console bus outputs.

What Kazdin meant, I think, is that a digital copy of a digital tape is a clone of the original (neglecting error concealment and correction). That's assuming the copy is made in the digital domain. If, during copying, the digital data is converted to analog and back into digital, there may be some slight degradation due to the D/A and A/D convertors. In either FEBRUARY 1985

In A/B tests, this tiny condenser microphone equals any world-class professional microphone. Any size, any price.

Compare the Isomax II to any other microphone. Even though it measures only 5/15" x 5%" and costs just \$189.95,* it equals *any* world-class microphone in signal purity.

And Isomax goes where other microphones cannot: Under guitar strings near the bridge, inside drums, inside pianos, clipped to horns and woodwinds, taped to amplifiers (up to 150 dB sound level!), Isomax opens up a whole new world of miking techniques – far too many to mention here. We've prepared information sheets on this subject which we will be happy to send to you free upon request, We'll also send an Isomax brochure with complete specifications.

Call or write today.

* Pro net price for Omnidirectional, Cardioid Hypercardioid, and Bidirectional models.

COUNTRYMAN ASSOCIATES INC. 417 Stanford Ave., Redwood City, CA 94063 • (415) 364-9988

Circle 15 on Reader Service Card

case, however, digital recorders introduce so little loss compared to analog recorders, that effectively "there is no generation loss with digital."

A Noisy Problem

I've built an effects switching system using your Electronic FSw design and other tricks I've learned from your book and elsewhere. The problem is a popping noise when I switch an E-H Electric Mistress into the system. I tried using "tie-down" resistors. The schematic showed 1M ohms at the input and a look at the output (while the text said try a 1-2.2M ohms). I've tried the 1M and look. Any advice on a direction to take? Everything works perfectly except this. Should I try the resistor in the electric mistress or in the switching unit or elsewhere? I realize this may not be enough information but what can I lose by asking? Also, I read a reference in a GP to the EH Micro-Synth "modified according to a Device 1:7 article." I wrote Device and the letter was returned. I'm interested in the modification so how do I find out about it? Also, I built the Hot Springs and was very disappointed in the sound. I'm sure it's either my fault or a bad part so I'm still working on it. I'll see what happens. Thank you for your time. A SASE is included in case I can get some help. I've read your pieces and built your kits since EPFM was first published and I was young. I'm very happy to see the progress that your career has taken and I'm glad someone like you wanted to help the rest of us progress too. Thanks to you. I know enough now to fix most of the problems I run across and to impress everyone with my stable full of toys and sounds.

> -Robert Carlisle Winston-Salem, NC

We received the following reply from Craig Anderton.

It's possible that there is a DC voltage coming out of the "Electric Mistress" which causes the problem. Assuming that you're using the footswitch design from the revised

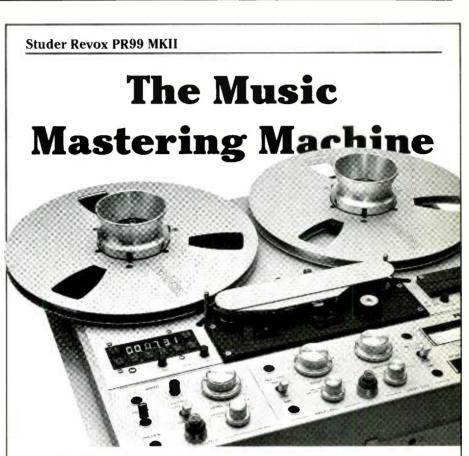
MODERN RECORDING & MUSIC

version of "Electronic Projects for Musicians," try inserting a 0.22 uF capacitor between the "From Effect Output" jack and point P on the footswitch board. Then add a 470k tie-down resistor from point P to ground. If this still doesn't solve the problem, add a 0.22 uF capacitor between IC1 pin 2 and point J. Hopefully this will solve the problem. Re DEVICE, it is no longer being

published. However, a complete set of 12 back issues is available for \$18 plus \$2.30 shipping/handling from Polymart, PO Box 20305, Oklahoma City, OK 73156.

Finally, don't give up on the Hot Springs! If you're disappointed with the sound, then I'm sure something is wrong because this has been an exceptionally well-received kit. Some people have had trouble when wiring up the springs, though, so that would be the first place to look.

Thanks too for the kind comments about what I do. I love my work, and plan to keep writing and playing music until they take me away.



If you're serious about music recording, you'll want to make your master tapes on a professional open reel. And if you want the best sounding tapes, you'll use a tape deck from the world's most respected name in audio recording: Studer Revox.

The new PR99 MKII packs a full load of production features into a low-priced compact recorder. Features like an LED real-time counter for exact elapsed tape time in hours, minutes and seconds. An Address Locate but ton to automatically search for any pre-selected address point. A Zero Locate feature to bring the tape back to the zero counter reading. Auto Repeat to continuously replay a tape segment of any length. And built-in variable speed control to raise or lower pitch up to 7 semitones. Other PR99 MKII features include: • Diecast chassis and headblock for durability • Self-sync • Input mode switching • Front panel microphone inputs • Balanced " + 4" inputs and outputs • Swiss/German craftsmanship and precision. Options include monitor panel, remote control, steel roll-around console, and carry case.

As for sound quality, we think you'll find the PR99 MKII sonically superior to anything else in its price range. But that's for your ears to decide. Audition the PR99 MKII today at your Revox Professional Products Dealer.



Studer Revox America, Inc., 1425 Elm Hill Pike, Nashville, TN 37210, (615) 254-5651

How to Record Your Band on a Budget

any bands want to record their own quality demo tapes, but they can't afford to spend a few thousand dollars for a basement studio setup. Fortunately, there is a way. In this article I'll explain how to make good recordings with a bare minimum of hardware. The quality may not match that produced by the proper equipment, but the results can be surprisingly good.

To make the recordings, you can use your band's P.A. mixer and microphones, an open-reel tape deck or Syncassette, and some high-quality headphones.

The tape deck should include

sound-on-sound or synchronous recording so that you can record the instruments first, then overdub the vocals. That is, the vocalists will listen to the previously recorded instrumental track over headphones, and record their parts along with it. This procedure gives a "tighter," cleaner sound than is possible if everything is recorded at once. It also reduces the number of microphones needed for recording, because the instrument mics can double as vocal mies

Microphones

In considering budget equipment, let's start with the microphones. Cheap dynamic P.A. microphones cannot do justice to some instruments. You may be able to borrow some good condenser microphones for drums,

Shield not connected

at this end

Resistor pairs should be

matched within 1%

Shield not connected

at this end

2 CONDUCTOR

BALANCED CIRCUIT

2-CONDUCTOR

SHIELDED MIC CA

UNBALANCED CIRCUIT

50K (

50K1

50K0

100.0

acoustic instruments, and vocals, There are a few high-quality mics selling for well under \$100 (such as the Crown Sound Grabber, a highimpedance cassette mic). If your mixer has low-impedance balanced mic inputs (with 3 pins), then this microphone requires a microphone line-matching transformer to convert the high-impedance mic output to low impedance.

Recording Direct

Amplified instruments such as electric guitar, bass, piano, and synthesizer can be recorded direct with a cable between the instrument's amplifier and the mixer mic input. All these instruments produce an electrical signal which can feed a mixer directly. No microphones are needed.

1001

1000

3 pin

male plug

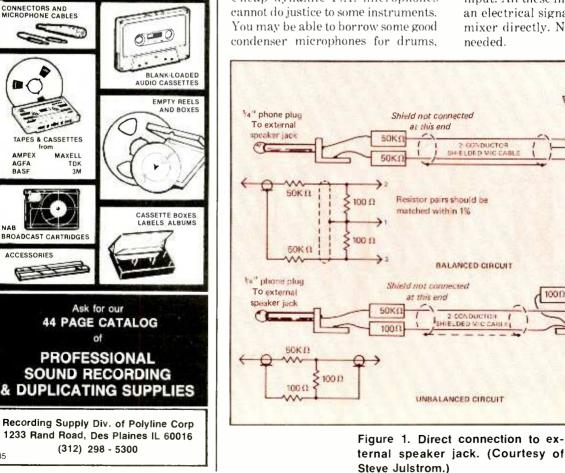
To mixer

mic input

1/4" phone plug

To mixer

mic input



8 Circle 17 on Reader Service Card

25

You can solder together some direct-connection cables as shown in *Figure 1*. These cables reduce the amplifier's output signal to a lower voltage suitable for a mixer mic input.

The direct-connection cables offer several advantages: (1) They cost very little; (2) they provide full-range frequency response; and (3) they pick up no leakage or room acoustics, so you can avoid the cost of treating the recording room with absorbent material.

To use the cables, simply plug the appropriate end into the amplifier external speaker jack, and plug the other end into a mixer mic input. Flip the guitar-amp ground switch to the position where you hear the least hum.

A direct connection to the external speaker jack (that is, the amplifier output) picks up amplifier distortion and tone-control effects. Often the distortion at this point sounds too buzzy or sizzly. Why? The guitar loudspeaker has a rolled-off highfrequency response that dulls the distortion of the amplifier and makes it easier to listen to. A direct connection to the amplifier output *bypasses* the speaker and so picks up too much of an "edgy" tone.

To record a more natural sound from the external speaker jack, roll off the excess highs on your mixer. This simulates what the speaker is doing. It's often necessary to roll off some low end, too.

For minimum hum, power the recording mixer and the instrument amplifier from the same outlet strip, inserting the three-prong, powercord plugs into three-wire grounded outlets. That is, ground the mixer and the instrument amp to the same outlet strip. If that is not possible, ground the mixer and amp to separate outlets. The circuits in *Figure 1* are designed not to create ground loops.

Electric Guitar

Let's look at techniques for recording each instrument. The following methods are just suggestions to get you started.

Record the electric guitar direct using the direct connection cable. Alternatively, mic the guitar amp a few inches from the center of one of the speaker cones.

Electric Bass

You can record the electric bass direct using the direct-connection

MODERN RECORDING & MUSIC

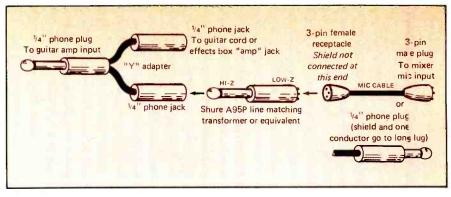


Figure 2. Direct connection to guitar.



AB Systems — You ain't seen nothin' yet!

For years, AB Systems has quietly built a reputation based on <u>value</u>. Our products are known to deliver reliable, state-of-the-art performance at an affordable price. This reputation has earned us a substantial following of "true believers".

For most companies, that would be enough. For us, it's only the beginning. You'll be hearing a lot more about AB Systems as we continue to refine and improve on our commitment to give you what you want — Excellence for a value!



AB System Design, Inc. 11480 Sunrise Gold Circle Rancho Cordova, CA 95670 (916) 635-0890

Circle 18 on Reader Service Card

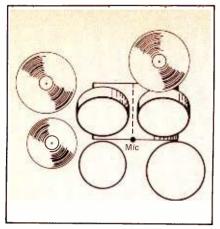


Figure 3. Suggested one-mic pick-up of drum set using a miniature omni condenser microphone.

cable. A cleaner sound results if you record directly off the instrument, rather than off its amplifier. To do that, obtain a microphone line transformer and use the assembly shown in *Figure 2*.

For extra definition, use the treble pickup on the bass guitar and turn up the instrument's treble tone control. Turn down the bass amp in the studio—just loud enough to be heard. This will reduce muddy-sounding bass leakage into other microphones.

Electric Piano

Use the microphone line transformer connection shown in *Figure 2*. Roll off some bass on your mixer if the sound is too muddy, and roll off some highs if the signal is too noisy.

Synthesizers And Drum Machines

These devices have jacks for direct connection to mixers. Ordinary microphone cables can be used.

Drums

It's a real test of ingenuity to get a good drum sound with just a few microphones. You might get by with two mics: one near the snare drum and the other in the kick drum.

Place a good, wide-range microphone (preferably a miniature omni condenser mic) a few inches above the snare drum in a central location as shown on the dotted line in Figure 3. The cymbals will be picked up from underneath. However, this measure of isolation may definitely decrease the high frequency response overall, but I feel that this sacrifice outweighs the headache of leakage. Move the



microphone around until you achieve a pleasing balance between the toms and the snare drum.

The recorded sound should be reasonably tight and clean for such a simple technique. The hi-hat will sound a little distant. You'll probably want to boost the high and low frequencies a few dB.

Put another mic with a good low end in the kick drum, a few inches from the beater head, slightly offcenter. Place a blanket in the bottom of the kick-drum shell, pressing against the beater head to dampen the vibration and shorten the overall envelope.

Sometimes it helps to hang sleeping bags or thick blankets around the drum set. They absorb room reverberation and give a better-damped sound.

Acoustic Guitar

Try using a pickup, or a condenser mic close to the sound hole. This position emphasizes the bass, so roll off the bass on your mixer to restore a natural sound. Since the acousticguitar microphone also picks up loud instruments, you may want to overdub the acoustic guitar later along with the vocals.

Grand Piano

Try a microphone about 8 inches over the middle strings, about 8 inches from the hammers, with the lid raised. If you're recording other loud instruments simultaneously, this arrangement may pick up too much leakage. Alternatively, try a Crown PZM taped to the outside of the lid, in the middle. Close the lid and cover the piano with heavy blankets if leakage is a problem.

Upright Piano

Place a mic or two over the open top, or in front, looking at the strings. Another possibility is to tape a PZM to a wall facing the soundboard.

Sax, Trumpets

For the sax, try a microphone near the bell, aiming at the keys. Trumpets can be picked up with a microphone between every two players. Mic placement on-axis to the bell sounds bright and edgy: off to one side sounds mellow.

"Free" Special Effects

Signal processors are used in recordings to produce special effects such as equalization, echo, and reverb. You can duplicate many of

www.americanradiohistory.com

these effects acoustically for no cost. Acoustic effects, however, are not as controllable or audible as electronic effects.

Equalization: If your mixer has no equalizers (tone controls), you can partly control the recorded tone quality through microphone techniques. Mic close with cardioid microphones for a brassy tone; back off for a more natural timbre. Mic horns and guitar amps on-axis for a bright sound: off-axis for a mellow sound. Adjust the tone controls on guitar amps for the desired effect.

The mixer output can be plugged into a graphic equalizer from a stereo system for overall tonal adjustment.

Compression: A compressor turns down a signal, when it gets too loud, and turns it up (expands) when it gets too quiet. That is, it reduces the dynamic range of the voice or instrument it's used on. When vocals are fed through a compressor, the vocals neither blare out nor get buried in the mix.

Singers can approximate this effect by using proper mic technique: Back away from the mic on loud notes: come in closer on soft notes. This will make the vocals easier to hear in the mix by keeping them at a constant average level.

Echo: An echo is a repetition of a sound. Echoes are commonly produced by analog or digital delay units, but you can make echoes with the tape deck you're using for recording. The deck must have separate record and playback heads to produce echoes.

Plug the tape-deck line output into a line input of your mixer. Set the source/tape selector to "tape." Start recording, and adjust the tape playback and mixer levels for the desired amount of echo. Note that this procedure puts echo on everything recorded, not just selected instruments. Use it sparingly.

Reverberation: Reverberation is a smooth decay of sound, such as heard in an empty gymnasium or a large cathedral. Some bathrooms are very reverberant, so you could try putting the lead singer in the bathroom and record him or her at a distance to pick up the room reverb.

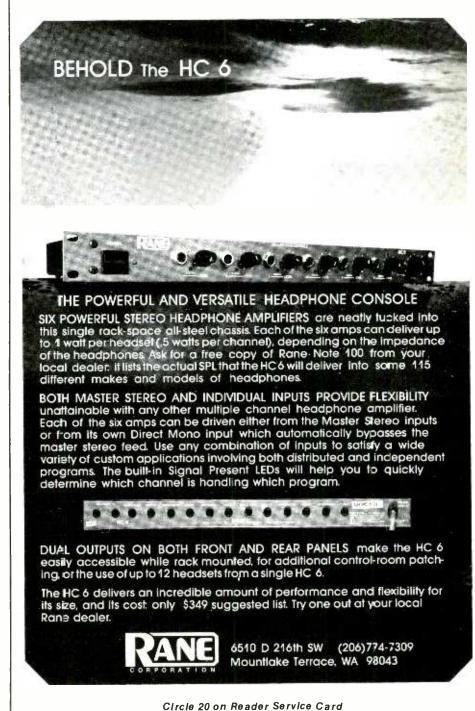
An alternative is to set up the bathroom as an echo chamber. Connect the echo-send bus on your mixer to an amplifier driving a loudspeaker. Put the loudspeaker in the bathroom along with a mic placed several feet away. Plug the mic into a small mixer or tape deck to amplify its signal up to line level. Run this line-level signal into the mixer echoreturn input.

Phasing or Flanging: This is a hollow, swishing, ethereal effect, created by adding together two identical signals separated by a short delay (about 0 to 20 msec). You can simulate it by moving a reflective surface—say, a record jacket—toward and away from the side of a microphone while recording. Experiment with the angle of the surface for best results. This trick is most audible on cymbals and vocal "s" sounds.

Monitoring

Before recording, you need to isolate yourself from the live sound of the band so you can hear what you're recording. Place the mixer in a "control room" separate from the studio. Run long mic cables or a P.A. snake from the mics to the control room. Close the door, slip on headphones, and monitor the recording.

If you're playing in the band being recorded, and there's no one to monitor the recording, you'll have to listen to the playback and make mixer adjustments until the play-



SAVE BY BUILDING OUR RACK MOUNT STUDIO EQUIPMENT

QUADRAFUZZ — four separate frequency bands of distortion are mixed for the smoothest fuzz you've ever heard. no. 6720......\$39.88

HYPERFLANGE/CHORUS — the cleanest, widest range, most versatile flanger anywhere at any price. no. 6750 \$149.95

<u>VOCODER</u> – unmatched performance in a versatile, low cost rack package. **no.6710......\$99.95**

HOT SPRINGS — user's agree, short of studio plate systems, you won't find a better reverb at any price. no.6740......\$59.95

ADD \$3 SHIPPING FOR EACH KIT ORDERED

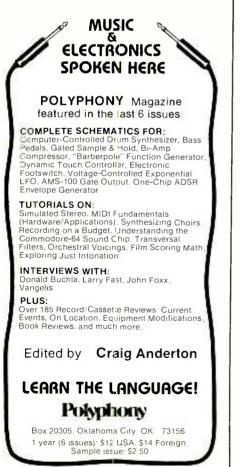
Innovative, cost effective designs by Craig Anderton in easy to assemble kits from:

POiO Electronics, Inc.

Direct mail orders and inquiries to: Dept. 11D 1020 W. Wilshire, Oklahoma City, OK 73116 (405)843-9626 Ask for your free catalog.

CHARGE TO VISA OR MC TOLL-FREE 1-800-654-8657 9AN to 5PM CST. MON FRI

Circle 21 on Reader Service Card



back sounds right. You can use headphones or a home stereo system for monitoring the playback.

Recording The Instrumental Track

Set up the musicians in a large, quiet. acoustically dead room; such as a living room or carpeted basement. The musicians can arrange themselves in any way that feels comfortable. They all should be able to see each other.

Place and plug in all the mics and direct cables. Connect the output of the mixer to the recorder line input, and plug headphones into the recorder headphone jack. Clean the tape recorder heads as recommended by the manufacturer.

Set all the mixer tone controls flat, including any graphic equalizers. On the mixer, turn down the treble for each instrument recorded off its amplifier speaker jack. Set the master volume control about ³/₄ up.

Now play the first song to be recorded, and have the lead vocalist sing along so the band can get a feel for the song.

If you have enough inputs on your mixer, you can run the vocal mic through the P.A. stage monitor speakers by turning up the monitor level on the vocalist's channel. Leave the vocalist's fader down (off) so you don't mix in the vocal with the instruments. Also keep the vocalist's stage monitors fairly quiet to avoid recording vocals on the instrumental track.

While the band is playing, set the pads or input attenuators on the mixer to prevent audible distortion. or to prevent the overload indicators from lighting up. Then adjust the mixer faders for a good blend of instruments, so that you can hear everyone clearly. You'll be doing a live mix as the band is playing. Also, set the faders so that both the mixer meter and recorder meter peak around 0 VU.

When everything is set, record the tune. Then play back the tape. If any instruments are too loud in the mix, turn them down slightly on the mixer and try again.

If the playback sounds distorted even though you did not exceed a normal recording level, it's possible that the mixer put out a signal strong enough to overload the recorder line input. In that case, turn down the mixer master volume so that the signal peaks at about -12 VU, and turn up the record-level control to get a 0 VU reading on the recorder meter. This should prevent distortion caused by overload of the recorder input.

Vocals

After the instruments have been recorded to everyone's satisfaction, it's time to add the vocals. Let's say you're using a recorder with soundon-sound, and you've recorded the instruments on track 1. Set the machine to copy track 1 onto track 2, and connect the mixer output to the track-2 input.

Using a Y-adapter. connect another set of headphones to the recorder headphone jack. Put headphones on the vocalist and on yourself for monitoring the recording.

Put a foam windscreen on the vocal microphone, and place it about 8 inches from the singer, above the mouth, to prevent popping. Plug the mic into your mixer.

If there are backup harmony singers, group them in front of a single microphone and mix them in. Give them headphones too. You'll probably want to put some reverb or echo on the vocals.

Now, start recording and have the vocalist sing along with the previously recorded instrumental track heard in the headphones. Adjust the track-1 playback level to control the balance between the vocals and instruments. Record the vocal/instrumental mix on track 2, peaking around +3 VU maximum for open-reel decks or 0 VU for cassette decks.

If you're using a multi-track recorder or a Syncassette with synchronous recording (instead of sound-on-sound), monitor the instrumental track in "sync" mode while recording the vocals on another track.

After the vocals are on tape, you have your finished product—a goodsounding tape for very little money. You can copy the final track onto a cassette to play for others. If you recorded the instruments and vocals on separate tracks of a multi-track machine, mix them to mono before dubbing to cassette.

Although this recording is as good as the equipment permits, better equipment can improve the results. There's no substitute for quality microphones, mixing consoles, and multi-track machines. Still, the experience you gained with minimal equipment will prove invaluable when you work up to more-elaborate setups.

denny andersen

Practical Music Video

Part 6: Picturization and Editing

n our last installment we covered the technical operation of video editing gear. This month we'll focus on the artistic aspects of editing -something called *picturization*.

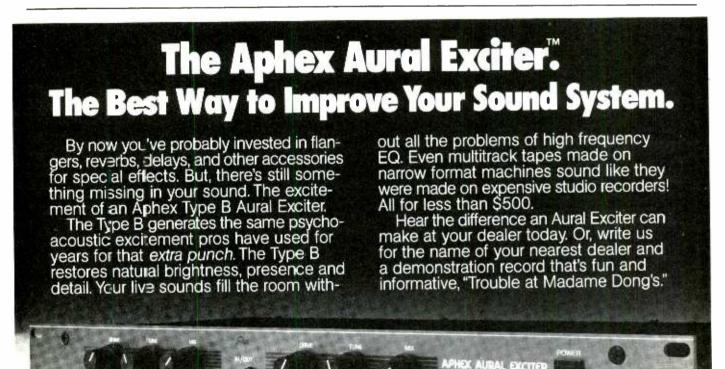
In traditional film terms, picturization is the process of combining pictures together to tell a story. In rock video it's more a matter of combining pictures with music in order to blow your audience away. Either way, picturization lies at the heart of the editing process.

Music video is changing the traditional rules of picturization, but that doesn't mean it's "anything goes" in the editing suite. Hot videos are hot precisely *because* they use the visual conventions of film so well. You have to be hip to the tricks before you can stretch them to the limit. right? Let's run through a few of the more useful tricks and see how the pros put them to work in music video.

Editing "In-Camera"

In a very real sense, you begin editing the minute you pick up the camera. What you choose to shoot or not shoot, your selection of camera angles. your use of zooms and camera moves-each of these is an editing decision which will affect the outcome of your tape. A good director "sees" the finished product in his mind as he's shooting.

As you set up each shot, think about the shot that comes before it. How will that shot connect visually with



Aphex Systems Limited 13340 Salicoy St., N. Hollywood, California 91605 (813) 765-2212 TWX: 910-321-5762

Aural Exciter is a trademark of Aphex Systems Ltd. © 1985 Aphex Systems Ltd.

www.americanradiohistory.com

the one you're setting up? How will you end this shot so the next one flows out of it? This logical flow of action from one shot to the next is called *continuity*.

Maintaining Continuity

With scripted projects it's common practice to shoot segments out of chronological order and then edit them into correct sequence later. In this situation it's especially important to keep track of your continuity, since your shots will be all jumbled up. If you stay on top of it while you're shooting, you'll have a much easier time when you get into the editing suite.

In a documentary-type situation, such as a live music shoot, you'll probably be flying by the seat of your pants, making it up as you go along. If you find yourself in a spot like that, be sure to grab a few "safety shots." These are cutaways, such as audience reaction shots, which don't have to be lip-synced to the soundtrack. Later, if you discover you've missed something, or if the transition between two of your shots is too awkward, you can insert one of these cutaways and it'll seem perfectly natural.

Preparing Your Shot List

Once you've got everything shot, it's time to go through your footage and make up a list of "keeper" shots the ones you'll use to assemble your final, edited reel. The question here is what to keep, and what to throw out?

This may seem like a simple decision, but it's surprisingly tough to make. It's easy enough to cut the obvious goofs, but what about that great shot that *almost* works? ("Sure it's out of focus, but...") Should you ditch it, or try to slip it through? The rule of thumb here is "if in doubt, throw it out." Beginning editors invariably make the mistake of leaving too, much in. The result is an amateurish reel.

In Hollywood they routinely figure on throwing out at least two-thirds of the footage they shoot. You'll probably have to keep more than that, if only because your time and budget will force you to accept more compromises. Nevertheless, ruthless editing is essential to a professionallooking tape. Cut till it hurts. Then go back and cut some more.

There's more to editing than

simply cutting out bad footage, however. What you're really doing is arranging your shots into sequences and controlling the flow of action in order to get your message across to the viewer. In professional music video, every sequence is painstakingly edited to grab your attention and hit you with so much so fast that you have no choice but to get the message. The key to this is catching the very peak of the action in every shot.

Capturing The Peak Of The Action

Every motion, every shot, has an inherent rhythm to it. The action starts, builds to a climactic peak, and then relaxes. Good still photographers are hip to this; they try to snap the shutter at precisely the right instant to freeze the action at this climactic peak. With a video camera you get the whole stream of action-build, peak, relax, maybe repeated several times, maybe just once. The trick to hot editing is cutting into each shot at precisely the right spot on this curve, catching the peak, and then getting out into the next shot before the energy relaxes too far.

Suppose I were to shoot you looking



up from this page and winking at the camera. On tape we'd see the top of your head; then on the "action" cue, you'd make your move up, wink, and sit there feeling silly until the camera stopped. To catch the peak of this action, we'd cut into the shot after you began to raise your head. We'd catch the wink, then get out of the shot before you had a chance to let down and relax. By cutting all the fat and paring each shot down to its essential peak like this, you heighten viewer interest and pull the audience from one shot to the next, right into your message.

Television commercials use this technique to build a flow of action that draws your attention into a product logo and slogan at the end. In music video the product is on the soundtrack. Your goal is to put the song across and present an idealized image of the artist. To do this, you edit the flow of visual energy on the screen to work with the flow of musical energy on the soundtrack.

Editing To Music

It's no big deal to stick pictures over a hit song. It's quite another matter to skillfully weave a hot visual flow into the structure of the music to help create a hit song. To do that you need not only video smarts, but a solid understanding of music as well.

You may have noticed in your audio recording experience that songs have certain "power points"-key spots in the arrangement or performance where something pivotal happens. Hit songs are hits because these power points occur where they do and build together to make people feel something they like. The obvious power points are called hooks, but there are numerous others which function more subtly and make the hooks work. Certain instrumental entrances or riffs may work as power points. So might key lyrics or downbeats, especially those signaling a move into a solo or chorus. Your video will be more effective if you can identify the power points in your song and edit the visuals to enhance and heighten their effect.

It's been my experience that the biggest problem many video directors and editors have is a lack of real musical background. They simply don't catch the more subtle musical cues, or they don't understand how the structure of the song really works. You'll find that your musical experience will be a tremendous asset in the editing suite, provided that you can develop the video smarts to go with it.

The best way to get a feel for editing to music is to watch for videos that work well and take the time to study them carefully. Watch for the peak of the action within each shot, and note how the inherent visual rhythms in the shots work with the rhythm of the music. Pay attention to the way individual shots are strung together into sequences, and notice how the visual sequences relate to the different sections of the song structure. Where are the musical power points? What are the visuals doing at these points?

Editing For Pace And Rhythm

The number of shots you use and the transitions you use between them will help determine the pace and rhythm of a picture sequence. Cutting on a major downbeat, for example, heightens the visual impact of a shot change and accentuates the beat. A dissolve, on the other hand, will soften the impact of a shot change—

FOUR 300-WATT MOSFET AMPLIFIERS @ 4 OHMS, IN 3 RACK SPACES—\$947. SEE US AT NAMM BOOTH #1007

The PCR800X2 utilizes two completely independent power supplies, dual power transformers, 2-speed cooling fans, and even dual A.C. power switches.

This newest model to incorporate our highlyadvanced Phase-Control-Regulation[®] technology, the PCR800X2 actually consists of two PCR800s and a PC-X2 front panel. The 19" rack mount panel converts the combination into a single stereo amplifier, when used with any Soundcraftsmen DX Series Preamp, or with any source plus our AB-1 Stereo Bridging Adapter."

Used as FOUR-300 WATT BASIC AMPS, it is ideal for many other audio uses, such as bi-amping, multi-channel systems, etc.

Each channel, when operating in bridged mono mode, produces 555 watts at 8 ohms with no more than .05% distortion from 20Hz to 20KHz, and employs the latest in Power MOSFET output circuitry.

CURRENT-LIMITING IS COMPLETELY ELIM-INATED in the design. Total weight is under 40 lbs. for the complete 555-watt per channel stereo amplifier.

The PC-X2 Front Panel is supplied separately. It requires only the 8 front panel mounting bolts to be removed and reinstalled through the PC-X2 mounting holes.

*A Stereo Bridging Adapter, Soundcraftsmen Model AB-1, is available at \$89.00.

Contractions Co

PCR 800 @ \$449. + PCR 800 @ \$449. + PC-X2 @ \$49. =



2200 So. Ritchey, Santa Ana, California 92705, U.S.A./Telephone (714) 556-6191/U.S. Telex/TWX 910-595-2524 + International Telex: 910-595-2524/Answer-back Code SNDCRFTSMN SNA

MODERN RECORDING & MUSIC

Circle 24 on Reader Service Card

useful if you need a smooth transition from one section of the song arrangement to another.

Music videos tend to have a lot of quick cuts; this heightens the sense of action and picks up the apparent pace. Just chopping your footage up into little pieces won't necessarily give you an action-packed video. however. It's not only the number of cuts you make that sets the apparent pace; it's how much information you give the audience and how fast you feed it to them.

Controlling The Flow Of Information

Your most important job in picturization is to control what the viewers see and when they get to see it. To hold your audience's full attention and keep them on the edge of their proverbial seats, you have to keep something new coming at them all the time.

Research indicates that the average person can process all the essential information in a static TV picture in something like two or three seconds. This doesn't mean you have to cut to a whole new shot every three seconds,

of course; it just means that you have to keep your visuals from becoming too static. Mix it up a little-short shots, moving-camera shots, closeups-whatever it takes to put the viewer square in the thick of it, right on the cutting edge of the action. The audience wants to see what's going on; you're their eyes, and their eyes work fast. Know where they want to be, get there just ahead of them, and don't let up for an instant.

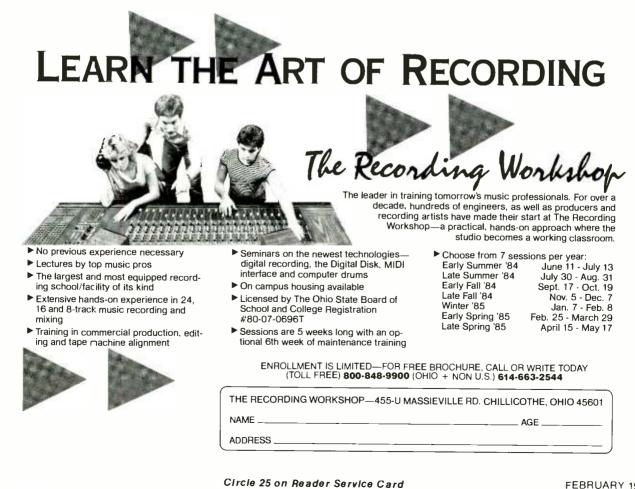
To do this effectively, you need to stay aware of your audience's perception. Editing gets tricky in this respect, like audio mixing-you tend to get so close to the work that you lose your objectivity. After you've gone over the same piece of footage a dozen times you begin to see it differently than you did when you were watching it for the first time.

This brings up an important point. Unlike a movie, or a concert, a music video clip is designed to be seen over and over again. This has a profound effect on picturization. In order to hold the audience's attention through repeated viewings, you have to move faster and pack more visual information into each sequence.

Visual Style In Music Video

Record company executives are using the term "eye candy" to describe the visual style they want in video clips. The idea is that "it doesn't have to have any lasting substance; it just has to grab your attention and give you a quick rush." Their ideal clip is fast-paced, full of catchy visual surprises, and sells a load of records for them every time it runs.

Due to the phenomenal impact of music video, this picturization style is beginning to spill over into other mediums. Ad agencies are talking about "the MTV look," which is having a predictable effect on television commercial work. Some of the more successful young directors have used music video as a stepping-stone into feature films, and their work is showing up in major studio releases. Film critics are noting the impact of music video on the latest crop of theatrical movies. It's clear that music video is revolutionizing more than just the music business. It's now shaping decisions in thousands of editing suites, day in and day out, industry-wide.



1

www.americanradiohistory.com

Great performers have one thing in common.

Mick Jagger, Pete Townshend, Tina Turner, Ronnie Milsap, Brian Wilson, Randy Owen—great performers know their legendary stature depends on the quality of their voices. That makes the purity of vocal reproduction critical. That makes rugged, reliable Shure mics essential.

Shure mics have been the number one choice of top professionals for many years from the legendary SM58 dynamic to Shure's newest trailblazer, the SM87 condenser.

Whether you're on your way up, or you've already made it, don't trust your great performances to anything less than the best— Shure mics.

THE SOUND OF THE PROFESSIONALS[®]...WORLDWIDE.

Circle 26 on Reader Service Card

www.americanradiohistory.com

jim rupert

Studio Insurance

kay, now where was I about a year ago? Oh yes, I remember. Before I got sidetracked with the results of the Design-A-Studio Contest and the Dave Miller opus, we were talking about insurance for your recording business. Yeah, I know, I know. Bring up the subject of insurance and most people's minds immediately flip the little switch in back marked 'off.' On a scale of interesting ways to spend an evening, the discussion of insurance ranks just to the left of watching paint dry. I'm aware of all of this and will do everything possible to keep the following few paragraphs as painless as can be reasonably expected. (After all, we're still gonna be talking insurance here. There's only just so much that's humanly attainable, campers!) In the words of Joe Friday, "Just the facts, please."

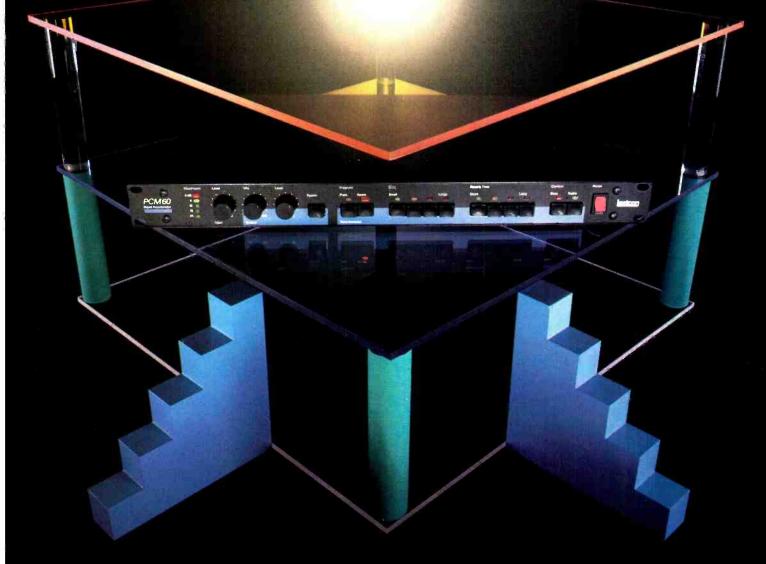
Four kinds of insurance are 'musts' to any business: fire insurance, liability insurance, automobile insurance and workers' compensation insurance. Fire insurance, for example, seems to have a self-explanatory title, but don't you believe it! When dealing with any agent, selling you any policy for any company, it's just as important to know what is not being covered by your insurance company as it is to determine what is. Fire insurance benefits may indemnify you-that is, compensate you for your losses-for any damage done to your building by the flames. However, you could be out in the cold for any damages done by your sprinkler system or local fire department. Smoke damage might also be excluded. You say your furnace exploded? Sorry! Explosion, windstorm, hail, vandalism and malicious mischief are not included under your fire coverage. You say you lost everything when your studio burnt to the ground? Sorry! According to your policy, only the building was covered, not the contents. (Kiss your equipment goodbye!) All your accounts and records were destroyed? Oh wow, sorry again, but standard fire policies don't cover accounts, bills, currency, deeds, evidences of debt, money and securities.

Getting the picture? Benefits can vary wildly from company to company and policy to policy. It's up to you to shop around for the protection that will cover you the most completely at a price that fits within your budget. You don't have to be a lawyer to understand the jargon of the insurance contract either. Sit your agent down and have him or her explain it in as much detail as you need to completely grasp where you are protected and where you're not. Record the entire conversation for future reference. (Don't do this on the sly, be up front with your agent. This is no time to think you're James Bond!) Whatever you buy, be absolutely confident with the coverage you're getting and the price you're paying for it before your John Henry hits the dotted line.

Now for a brief disclaimer. Please don't think I'm trying to convey the impression that insurance companies are a bunch of sharks circling for the kill, ready to grab your check and steal away into the night and future invisibility. Nothing could be farther from the truth. All companies selling insurance protection are kept on a fairly tight leash by both state and federal regulations and watchdog government agencies. Everything you're getting and excepted from is right there in black and white in the contract you'll sign. Some companies offer more complete coverage than others. Some charge more for the same services. The final decision is up to you. Check with your competition and see if they might recommend a particular agent or firm that they feel has treated them right in the past. A recording studio has special insurance needs unique within the business world. It couldn't hurt to deal with an insurer that perhaps already has an insight into the protection needs of a budding young studio like yours.

Now that you know that insurance agencies really are on your side, erase any thoughts of larceny from your own heart as well. Anybody that has any delusions of clipping their insurer with an illegitimate claim for a quick tidy profit had better think again. Insurance companies are not just good business people, they're pretty smart cookies to boot. Screw around with fraudulent claims and grossly inflated damage reports and you can plan on having your

Presenting Lexicon's PCM 60



Superior Digital Reverb Within Reach.

Lexicon proudly announces the PCM 60 Digital Reverberator—the first reverb with the Lexicon sonic quality demanded by so many performing artists and studios at an amazingly low price. Inside the PCM 60's refined package are the same realistic rooms and plates that have made Lexicon famous. And Lexicon engineers have carefully designed the PCM 60 for rugged use and easy operation: over 100 distinct and useful everberation effects are only a few pushbuttons away. Whether you're looking for a long, rich reverb for vocals; a warm spaciousness for instrumentals; a bright or sizzly plate for percussion; or a natural ambience for dialog or all forms of electronic music, the PCM 60 does the job with Lexicon style. Don't invest in a reverb until you demo the PCM 60 at your Lexicon dealer. With the most demanding program sources, listen to the PCM 60 and compare it with the competition—you'll find no one else comes close. For the serious musician or small studio, the PCM 60 is worth your investment.



Lexicon, Inc., 60 Turner Street Waltham, MA 02154 617 891-6790 Telex 923468 C1rcle 27 on Reader Service Card Export: Gotham Export Corporation, 741 Washingtor Street, New York, NY 10014

www.aneniesmachiohistony.com

MR&M subscription forwarded to your local federal prison. In the case of all 'legit' losses covered within the terms of your policy, you must furnish within 60 days a complete inventory of the destroyed, damaged and undamaged property showing quantities. costs, actual cash value and amount of loss claimed in complete details. If you and the company disagree in any way on the amount of loss, special appraisal procedures by an outside party are usually spelled out in most fire insurance policies. The insurance company may compensate you for losses in several ways: 1) It may pay you actual cash value of the property and/or equipment at the time of loss; 2) It may repair or replace the property for you with material(s) of like kind or quality; 3) It may take all the property at the appraised or agreed value and then reimburse you for the loss. (The second two options can obviously mean a bit of time lost while repairs to equipment and/or new gear being obtained are being arranged. Plead for door number one with a replacement-cost check behind it!)

In today's 'sue-happy' society, Liability insurance has become essential. Even for a small business, legal liability limits of \$1,000,000 (that's six zeros as in million, campers) are no longer considered unreasonable or even high. Anyone who is hurt while in your studio facility or anywhere on your business property can hold you (and your company) personally responsible for any damages that may result. Even in cases where you used 'reasonable care' to prevent accident or injury, you may still be legally liable for damages. Want an even scarier thought? How about the fact that even if the suit against you may be false or fraudulent, you could still be stuck for court costs, legal fees and interest on judgements in addition to the liability judgements themselves. Suppose your assistant engineer dukes it out with the bass player from the garage band that's working in the studio. Yep, you're liable. Say he controls his fists but not his mouth and settles for calling him a whipsnake. Under the liability statutes, you could even be held responsible for personal injuries, (libel, slander, defamation) as well as bodily injuries. How about your clients' master tape files being stored in your studio? You guessed it, you're liable.

Whenever an incident arises that might cause a future claim against you, you must notify your insurer immediately, no matter, how unimportant the incident may seem at the time. This is not so they can raise your rates. It is only so potential problem areas might be corrected and the insurance company may not disqualify your coverage for failure to adequately report to them.

Suppose you toss a package to one of your employees and ask them to take their car and run down to the post office. On the way, your employee runs down a group of nuns, drives his car through the window of your neighborhood police station and turns his car into lunch meat. (You've already guessed what's coming, haven't you?) Even though you do not own the car, you can be held liable since the car was being used on your behalf. What's the answer? Complete business automobile insurance is a good place to start. Make sure that all vehicles that might be used for any sort of business purpose, no matter how trivial, are registered and covered with your insurance agent.



WERE EXPANDING That's right: We're Expanding and

Compressing and Limiting and Gating and sound great...which means

Duck ng and Reducing Noise. Listen closely and you'll hear that our line of dynamic range processors is the most versatile in the industry. Not only can we boast of unbeatable specs and competitive pricing, but most important, our processors sound great...which means

they make you sound great! If audio is a part of your life, then we can make life easier for you! Call or write for details.



109 Bell Street Seattle. Washington 98121, USA Telephone (206) 624-5012 Telex 703282



Taste the Hot One The Electro-Voice PL78

Rock it hard and the PL78 dishes it out . . . with no overload, no distortion. This hot, new performer has wide dynamic range that handles blasting vocals or the most explosive percussion.

Or play it soft and the PL78 singles you out. With exceptional sensitivity, the PL78 scoops up all of your voice or instrument and flavors your sound



with presence and intelligibility. Internal filters roll off low frequencies for crisp, clear sound that's deliciously pure. And condenser design plus a built-in pop filter eliminate handling noise and keep sound clean.

The PL78... for a flavor all your own. To get the whole scoop on the PL78 and our other

PL Series vocal or instrumental microphones, visit your EV dealer. Or contact Mike Solomon at Electro-Voice, Inc., 600 Cecil St., Buchanan, MI 49107.



Circle 29 on Reader Service Card

Also remember that personal property stored in an auto and not attached to it, (like that package for the post office or maybe equipment that you are hauling to a remote recording site), is not covered under an automobile policy. Once again, work it out with your agent to make sure all the angles are covered. Skipping a condition that might knock two dollars a month off of your premiums could end up costing you tens of thousands down the road a chunk. It's the smart businessperson indeed who knows how to cover his assets!

Workers' compensation insurance is now legally required in almost all states. Rates for this type of insurance can vary from 0.1 percent of the total payroll for 'safe' occupations to about 25 percent or more of the payroll for very hazardous occupations. Your individual insurance company will be able to tell you what category your studio employees fall into. (Don't worry, it should be in the 'safe' side of the listings.) Each state's laws will determine the level or type of benefits payable under workers' compensation policies. Contact your local office of the U.S. Small Business Administration to get the straight poop on your particular area. Please don't forget about this one. The first time one of your employees gets hurt on the job and you could be faced with a multi-million dollar lawsuit, you'll appreciate the Feds' concern over this type of coverage. In all likelihood, not all of your employees will be covered by workers' compensation laws, so the cost of your premiums should be minimal for this kind of insurance.

Several types of insurance, while not absolutely

essential, will add greatly to the security of your new studio business. In case a fire would wipe you out for a while, business-interruption insurance can cover salaries to key employees, taxes, interest, depreciation, utilities costs and even the profits you would lose by being shut down!

Crime Insurance can help protect you from robbery, burglary and theft on or off your business premises while also protecting you from internal crime like employee pilfering and embezzlement.

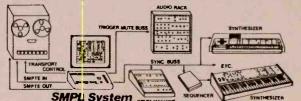
One of the most serious setbacks that can hit any small business is the loss of a key employee. If your one-man studio operation depends entirely on your skills as engineer, manager, comptroller and chief cook and bottle washer, you may want to give a little thought to some key-man insurance. The key employee can be insured with both life and disability insurance that is owned by and payable to your company. The premiums for such a policy are not a deductible business expense, but any proceeds paid to a company are not subject to income tax either. In a small organization, this coverage can be a life-saver!

So that's about it! Now that wasn't so bad, was it? Next month we're going to be delving into how to have fun while you're having teeth extracted. Now that's really going to be a challenge!

As for me I've got to go have a face-off with my own insurance rep. I thought I had every type of coverage known to man until a few months back, and now they tell me I wasn't covered for this... I mean, it used to be the nicest little studio anywhere near Mount St. Helens. See you next time.

COMPUTERIZE YOUR STUDIO WITH SMPTE TIME CODE FOR UNDER \$1,000!

Whether four track cassette or forty track reel to reel, the SMPL SystemTM can computerize your studio for greater ease, productivity, and SMPLicity.



SMPL interfaces with your recorder's remote control jack and provides:

* Automatic punch in, punch out and search to cue accurate to 1/30th of a second. Never miss a punch again!

* Autolocation. Finds solo, cue, verses - up to 8 programmable points to a song.

* SMPTE Time code generator/reader. By recording SMPTE code on one tape track, small studio operators may then slave their machines to a prolevel multi track at any studio with SMPTE machine-to-machine sync. or sync audio tracks to video.

Remote transport control.

* Musical instrument synchronizer with programmable tempo, sync most drum machines/sequencers to the SMPTE track; even save tape tracks by syncing instruments to SMPTE during mix down and recording them directly into the two track master! SMPL displays system data on any B & W or color TV or monitor (not included) so you always know exactly what's happening with the system.

Almost any recorder can be SMPLified — no tach out or speed control required.

SMPL is unprecedented. Nothing else provides all these features at this remarkably low price. More information? Send for our brochure. Can't wait? call (405) 842-0680 for the name of the dealer nearest you.



No representation that SMPL is a product of Commodore Business Machines. Inc or an affikated or related company is intended, nor is there any representation that there is any source of origin of Commodore Computers other than Commodore Boiness Machines. Inc. or its affikated or related companies.



"Let there be time" A VISION OF THE FUTURE.



DeltaLab's All New CompuEFFECTRON®

We took our time and did our homework before we decided to introduce a unit with spiffy lights and displays. The reason ...? Lights and displays, in and of themselves, do not improve sound quality or performance. Sc, before we could justify it, we made sure that our "new concept" of fancy features made a significant contribution to the overall sonic performance.

The result ... the CompuEFFECTRON. It is the first digital delay unit whose microprocessor actually operates directly on the signal in "real time", to create effects once considered impossible.

Just look at some of what you get!

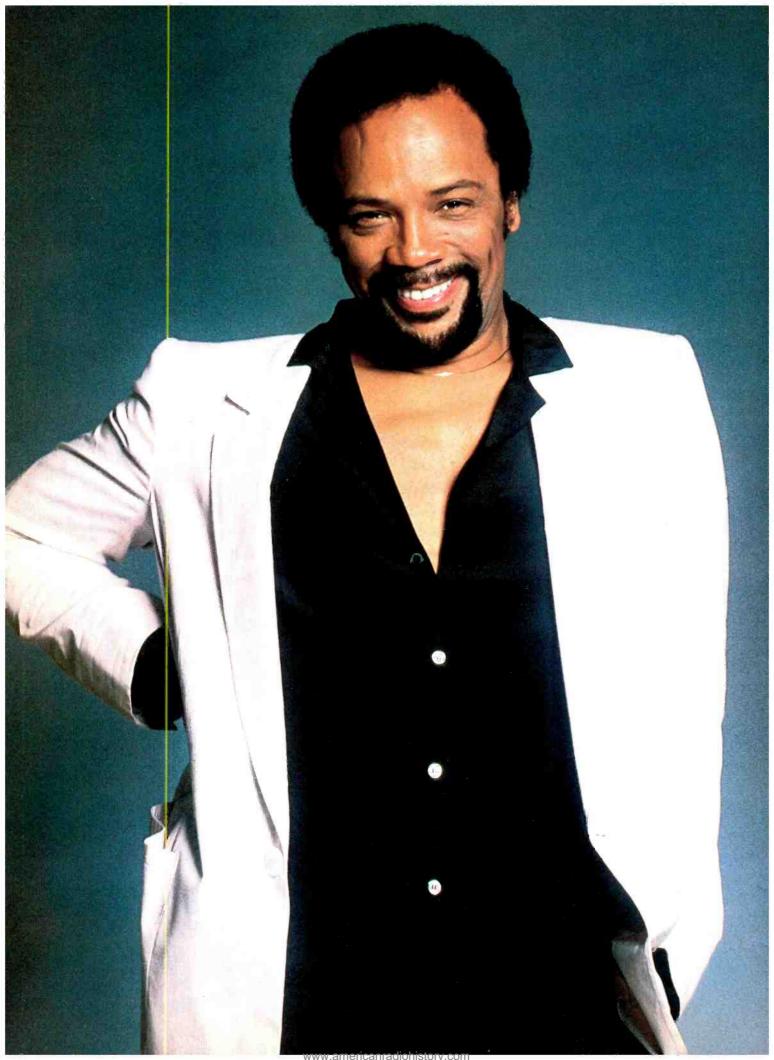
- Touch Panel Controls everything at your finger tips
- 20kHz Bandwidth at all Delays (up to 1.7 seconds)
- 128 Preset Programs (Effects) with instant accessibility
- Sequence Programming with remote accessibility
- Record, Play and Repeat with "full" edit capability
- Over 100-to-1 flange ratio (virtually unlimited)

Real time processing also allows you to switch from effect to effect with no annoying "glitches" instantaneously, upon command. And, it is possible to set up a new effect while using another. No one else offers such capabilities. The CE 1700 is truly a "vision of the future".

Hear one for yourself ... Visit you local dealer and check it out!



Music & Electronics . . . Naturally!



Quincy Jones Sight and Sound

odern Recording & Music is probably one of the few magazines in which Quincy Jones needs no introduction. From his multiple-Grammy award winning solo album (like "The Dude") to his work on "Thriller," Quincy continues to set ever-higher standards in the field of music production.

What many may not know, however, is the depth of his experience. Quincy's career spans several decades (he was born in 1933), and he has worked with such jazz giants as Count Basie, Lionel Hampton, Dizzy Gillespie, Milt Jackson, Louis Armstrong, Duke Ellington...the list could fill several more pages. During the heyday of R&B, he produced artists such as Ray Charles and Aretha Franklin but was equally at home doing pop hits for Lesley Gore ("It's My Party" et al). In the '70s, his protegees the Brothers Johnson stormed up the charts, and in the '80s, he worked his magic with (among several others) Michael Jackson, securing near-legendary results. Want more names? How about Glen Campbell, Bruce Springsteen, B. B. King, Paul Simon, Henry Mancini, Johnny Mathis—all of whom have worked with Quincy.

That's quite a resume right there, but there's more. Quincy also studied with Nadia Boulanger in Paris. He played what was probably the first synthesizer heard by the public as the theme on "Ironside," and has scored over 50 major motion pictures (picking up Academy Award nominations for In Cold Blood and In the Heat of the Night along the way) as well as numerous TV projects (including Roots). Although nearly killed by an aneurysm in the early '70s, he came out of that experience more determined than ever to live his life to the fullest.

craig anderton

Those are just the basics, but they're enough to give you an idea of the type of person that Quincy Jones is. Unfortunately, there's no video to go with this-so you'll just have to imagine his smile, his ever-present enthusiasm, and the fact that he always seems like a kid who has just been let loose in a candy store. All those years in the business haven't made him jaded; instead, they've amplified his love for music, people. and his art.

Modern Recording & Music: The LA music and film scene has a dogeat-dog, competitive kind of reputation. Yet you've been successful with a career that spans several decades. How have you managed to stay on top in such a competitive environment?

Quincy Jones: I don't know ... I really don't! I just keep going. I've been in the record business for 35 years. When I first started out, I wanted to score movies more than anything else in life because my first love was art...pictures. I still have a quirk where I imagine contours, shapes, and colors even before I get to the sound. I don't know what that's all about; it's just my way of thinking musically. That's probably a backwards way of answering your question, but (to be successful) you just keep doing what you're supposed to do, try to forget what you did before, and hopefully not use a lot of things you did before.

MR&M: How do you avoid getting into creative ruts?

QJ: Mainly. I think change forces you to avoid ruts. I feel the choice of the projects you take on determines that you don't stay in a rut. If you do artists that are very similar. I think you could get into somewhat of a trap. But when you shift gears-I went from "Thriller," to James Ingram, to Frank Sinatra-to just keep changing in big sweeps instead of little tiny circles is what it's about. For example. I hadn't done a date like the Sinatra date in years. We had about 25 guys just playing, Frank sang, Phil Ramone turned up the pots, and we went for it: What you hear is what you get. No "modular" recording where you take three months, fixin' this up, and re-doing the last versejust hit it.

MR&M: So you think the variety is what makes you successful, rather than the success leading you into doing a number of different things?

QJ: Well, at this stage in my life a lot is available to me. Some of the



calls I get I don't believe! It's the kind of thing you used to dream about when you're a kid, but once you get to be 51 you just can't deliver all that stuff. So out of 80 choices a year. you have to choose one or two where you can give it your all. That's very difficult; I wish they would have spread this out over my whole career. but I'm not complainin' about it! It's wonderful. man ... all people that I love and respect and admire wanting to work with you is a great feeling. but you realize you only have so much time. Since the operation (for the two aneurysms) there are a lot of dreams I want to realize, and those dreams are now top priority.

MR&M: I want to discuss some of those dreams; specifically the "Evolution of Black Music" project but also the film you will be producing, "The Color Purple" (from the best-selling book by Alice Walker). Does the interest in film mean you will be deemphasizing music?

QJ: No. We got a sound already; I'm going to add a look to it too. I love sight and sound-that's what the future's about. "The Color Purple" is a film that's loaded with music that's very dear to my heart. I've been looking for 15 years to find this kind of story. a story with which I can really be involved.

(With film) the director probably

does most of the work (laughs), but even as a producer you have to keep your enthusiasm up for 18 months or whatever it takes—right up until the dubbing. You have to love that film, it has to have that essence. Alice Walker's book has everything for me-everything I could ever want out of a book. She's a lady that has a craft, the gift, the connection with nature, and is also one of the most unbelievable people I've met. It's a book about relationships between women: it's a "period" film with a nice span-about 1905 to 1940-so fortunately, it covers some of the things I've been working on with the "Evolution of Black Music" project. It covers Robert Johnson, Scott Joplin, Bessie Smith. Louis Armstrong, Duke Ellington-some of my favorite sounds ever. To incorporate this into a musical score is very exciting; I'm also writing an original score for the dramatic background, and writing original material for the principals in the movie that sing. So it's really a three-dimensional score. It's *perfect* for me.

MR&M: Sounds like you're going to have fun...

QJ: Well, it's been working like a dream so far. I've heard all those nightmares about Hollywood studios. I'm not saying it doesn't happen, but it's not happening to me.

MR&M: When do you expect the film to be released, and through what studio?

QJ: We're aiming at Christmas 1985. Warner Brothers says they want it to be the film that they're most proud of. Actually, I've been kind of afraid of getting involved with producing because people ask you to be an executive producer, but what I really wanted was to be line producer on a picture I really love. When Peter Guber and Jon Peters asked me about working with them on the film, I said absolutely—but I wanted to be "in the trenches." I can't handle standing back and being a spectator.

MR&M: Do you plan to get more involved with video as well as films?

Q.J: Yes. we want to experiment with it. Like I said I'm not losing the music, just adding a look. Right now we're doing a really fine animated thing (smiles), "Bugs Bunny Meets the Dude"...

MR&M: To go along with your film. "The Dude?"

QJ: Oh yeah. it's going to be a tune but it's also a five minute theatrical short. It's gonna be hot. The Dude is taking Bugs to the street, and it's really funny...it really is (laughs). I know that these are childhood kinds of dreams, but you gotta get those out too.

MR&M: Are you going to be writing music specifically for videos?

QJ: I think so. Right now, the video enigma concerns literal and aliteral music videos. The jury's still out for me with literal videos. I don't know if they can hold my interest. or whether I'd want to own a whole collection of those. But I don't think we've even scratched the surface of what videos are about. Everybody's just trying to see what's going to stick: is it Jane Fonda doing exercise tapes, or "Raiders of the Lost Ark," or Michael Jackson's "Thriller." Those did stick. But we haven't even touched the essence of video.

MR&M: Do you think there will be a parallel movement to home recording where musicians go out and get video equipment and start shooting videos on a real grass-roots level?

QJ: I hope so... I hope so. It can become an art form if we deal with it right. I've seen some wild things; like Herbie Hancock's "Rockit." There are a lot of other people out there doing great things, and it's only going to get better.

MR&M: Getting back to home recording for a second, do you think MODERN RECORDING & MUSIC all these musicians having four track and eight track machines has made any impact on the industry? In your opinion, is it generating more quality music or more garbage?

QJ: Home recording enables people to experiment more, but I don't think it's had any effect at all. Everybody's saving a little studio time, cutting down on their studio bills. As much garbage is made in big studios as on four tracks (laughs).

MR&M: Do you have a home studio that you use for pre-production?

QJ: Yes, 1 do. I have a Synclavier, little Yamaha board. Oberheim "System" (DMX, OB-8, DSX), Yamaha GS-1, DX-7, you know, all those initials and numbers... I love 'em, they're great toys. I yearn for the day when I can sit down and really ... (pause)...read the brain, read the mind of these instruments because they're like another person out there who thinks a little bit differently. Fortunately, in 1964 I did the pilot and first few episodes of "Ironside" with a Moog, thanks to Paul Beaver I think that may have been the first synthesizer the public ever heard, Paul Beaver was the daddy of all that. I don't think it was used on records until Carlos' album ("Switchedon Bach"); I'd love to know if "Ironside" was the first time the public heard a synthesizer. I didn't know what the hell it was, really. Beaver had a bunch of strange instruments like this little freaked-out clavinette. and a weird "Novachord," and a

"Canary" that we used to use to reinforce acoustic instruments. He said "try this thing Robert Moog just sent me," so I used it in Ironside. Next time I went into the studio he said, "Why don't you use the Moog again?" I said no, I'd already used it once...so he sat me down and set me straight about what this instrument was all about, that it was here to stay. God bless Beaver, he died of the same thing I had two weeks after I got out of the hospital with my operation. He was a beautiful man, he taught so much...he left a real strong spirit with all of us. Beaver prepared us for this (new kind of instrument), so it hasn't been difficult. I'm not a technical person, but I understand the melody of the synthesizer, and have kept up with it since '64. He inspired me to keep up with it: I live in a part of the world where every six weeks there's something newwhether it's FM, or sine waves, or what—I can't get out of the way of it, these instruments just run into you. I imagine if you took off 15 years and came in, the changes would blow your head off. But when you take it five minutes at a time, you start to see the mentality of the instruments and see that really, they're growing an inch at a time, not three miles at a time. I thank Beaver-wherever he is, you know-for being persistent and making us pay attention to the synthesizer. He was a really visionary person.

MR&M: You say you're not par-



(I. to r.): Michael Jackson, Engineer Bruce Swedien, and Quincy Jones.

One thing I really like about doing my album is that I don't have to argue with anybody, discuss anything with anybody...I mean, we (points to himself and laughs) get along just fine! It's a tremendous freedom.

ticularly technical, yet sometimes I wonder how much that matters. You seem to have no trouble working synthesizers into your arrangements...

QJ: That's the orchestration perspective.

MR&M: Yeah. So many times on records the synthesizer stands out too much rather than being well-integrated into the track.

QJ: Well, I really look at the synthesizer as an addendum to orchestration rather than a replacement for anything. To me, the best sound in the world is to use a synthesized string sound as foreplay, if you will, and have it impercetiblylike a lap dissolve—blend into twelve violins or something. Then you know it's for a sonic trip, not just to save money by eliminating a string section. I don't believe in (the latter). I see the synthesizer as a way to bring more nuances out of all the available colors, to really paint with these colors...it's Cezanne, man. It's about painting.

The synthesized color can be really beautiful when you get what you want, but it's also tedious. Recording synthesizers always takes ten times longer than you expect. I have a favorite expression; it's like painting a 747 with a Q-tip (laughs). It feels like that! But they're beautiful colors, synthesizers have their own personality and they belong in the orchestra. I know from the bottom of my heart that if Ravel, or Bach, or Stravinsky, or Beethoven were alive they'd be right there in the workshop with us painting 747 s with Q-Tips.

MR&M: Composers are always interested in pushing sound to the limit...

QJ: I know! They're always saying let's go someplace else. Now we've got violins, we've got trumpets, we've got synthesizers, we've got it all. Now it's down to taste and judgment. MR&M: What do you think of all these new sampling instruments?

QJ: I think they're great if you learn how to use them.

MR&M: What about the ethical considerations? I read that Herbie Hancock sampled one line from a Michael Jackson album. Is this going to lead to problems?

QJ: Well, you're not going to reproduce what the original thing was anyway. It depends on what you're going to do with the instrument: I mean, just one sound by Michael isn't going to mean a damn thing, unless you string several things together. It's like saying "I used an A natural. you can't use it."

MR& M: So it doesn't cause you any problems...

QJ: No, no. Doesn't cause Michael any problems, either. Doesn't cause anybody any problems.

MR&M: It doesn't cause me any problems, either. You don't think sampling instruments will put people out of work, or any of that stuff?

QJ: Of course not. It certainly isn't going to put Michael out of work (laughs).

MR&M: Besides which, the things don't play themselves. You always need to hire a musician to play the instrument anyway...

QJ: Of course you do! Yet people get so paranoid about that. I understand their concern, but take drum machines and drummers. Drum machines can do a lot of things, but they can't do what a real drummer does. I hear more and more people saying let's use real drums. A judgment has to be made of what the music is supposed to conjure up emotionally, and it takes a musician to do that. I've seen guys program drum machines for eight hours. I could get a drummer to come in and put that thing away in 15 minutes! I think there's room for all of it, it's not that big a deal. And I'm totally

familiar with both sides of it. I'm neither a traditionalist nor a space freak.

MR&M: We've talked a lot about new things; I'm curious about what kind of new techniques you want to try on your next solo album.

QJ: A lot. A kaleidoscopic thing. I haven't made a solo album in three years, so I have a lot of anxieties bottled up. One thing I really like about doing my album is that I don't have to argue with anybody, discuss anything with anybody... I mean, we (points to himself and laughs) get along just fine! It's a tremendous freedom. I feel that with artists like Michael Jackson and James Ingram too, but still, it's his album. I still feel as a producer, arranger, composer whatever those things mean-the idea is to make an album that turns you on, that you like. I try to do that with other people too, but a solo album is just totally something you want to hear. I don't know how to make a record for a million people... I don't know what they're going to like. It's much easier to get emotional about something you like, and you're just lucky if something you like plugs into a million, or 37 million people. But I wouldn't know how to keep 50 people happy.

MR&M: Arè there any records you made you really liked but that never hit it big?

QJ: Oh yeah. Oh yeah. A lot of them. Aretha Franklin's "Somewhere." It was just re-released; I think the original sold about 111 copies. It was one of my first productions. It was a big orchestra, and Aretha plays piano and sings "Somewhere" from West Side Story. It just puts me on my knees. Stuff with Sarah Vaughn in '55, '57... Basie... some things with Chuck Willis, Okeh records. Movie scores where the movie died and the soundtrack died along with it. Things that your ears like, but get lost in the cracks.

MR&M: That reminds me—I've heard you use the term "ear candy." Could you define exactly what you mean?

QJ: The things that make the ears smile (laughs). Just colors—like what candy does to your tongue. There are things that do the same things to your ears. A warm tickle, you know...a little warm, brown fuzzy.

MR&M: While we're covering terms, what precisely do you mean by "modular recording?"

QJ: In the sense that nobody sees each other at one time. The antithesis FEBRUARY 1985





The All Star Choir recording Donna Summer's State of Independence (I. to r.): Stevie Wonder, Brenda Russell, Michael Jackson, Dionne Warwick, Christopher Cross, Dara Bernard, Kenny Loggins, Michael McDonald, and James Ingram with Quincy Jones.

of the Sinatra date, where it's him and the orchestra and that's all you're going to get.

MR&M: Do you think "modular recording" is good, bad, indifferent, or what?

QJ: I don't know. Here's what it's about: We're used to it.

MR&M: Do you think it hurts the feel?

QJ: (Pause) Sometimes, sometimes not. I don't get hung up in that, you know, because sometimes it sounds like shit with everybody there (laughs) ...and you can't get it off the ground no matter what! So it doesn't make any difference. And most of the time—here's the ironic part—you're sitting there with earphones on when you're with the other guys anyway. So if you put the earphones on and you don't look at the guy, he might as well not be there anyway.

I've worked on both sides of it. When that groove is really happening, musicians do feed off of each other sometimes. We were cutting the track to Ai No Corrida (first tune on the Dude) with the Brothers Johnson, Herbie Hancock, John Robinson, Steve Lukather...it sounded like a train groovin' along. You could *feel* that energy, and the spontaneity was there. But I've also had that happen when you start with a drum machine and build (the track) up from scratch.

MR&M: So what do you get hung up on while producing?

QJ: The real nitty-gritty part of the producer's job doesn't have to do with techniques, the first thing—Number

One—is picking songs. If you don't have that, you're just polishing garbage. Songs are what start the magic. The second thing is to be the scout master/magician. You have to be a magician to encourage and provoke magic. It's all about magic, you know.

MR&M: How do you encourage magic?

QJ: I don't know, I don't know. You just believe...vou have to love the people you're working with. I can't handle it if there's a situation where we're not getting along; I'm completely ineffective that way. If they're mistrusting me, or doubting me, or second-guessing me I'm totally ruined. When somebody gets in the studio and we really trust each other-and I keep mentioning Michael and James Ingram-then it's magic. It's trust. Cause when you tell them to try something, you might be asking them to take a path they might not agree with, and it takes a lot of emotional energy to do that... There's no safety net, because if he sounds like an idiot, it's embarrassing even if it is only on

tape. The magic starts with trust and love. If you love somebody, you love them enough to really dig in to find out what their limitations are and to know what puts them emotionally uptight. You have to be sensitive to their needs.

Many years I've felt an urge to push singers into an area they're not sure they can handle. But I know they can, and the whole thing is get them to make that leap because if they make it and get to the other ledge, they're going to be very happy-99% of them are. But it's definitely a stretch, pushing into the next area. That happened on "Lady of My Life" with Michael. I said, "Michael, at the end of this, I need you to beg. You've never begged on a record before, but I need you to beg." Michael says (Quincy imitates Michael by covering his face with his hands, leaning back, and laughing), "Arhh! don't say that." Cause he's so sweet, you know. So he says, "Well, pull the curtains down so Bruce (Swedien, Quincy's engineer) can't see me, and get the lights down, and I'll do it one time." But he knew what I was talking about, and man. the first take *he did it*.

At first he had trepidations, though, about jumping in the water. It's rough in the studio—you're so vulnerable, you can make an ass out of yourself. But you have to love and trust each other enough so that you *can* make an ass out of yourself, and if you do, hell it's only tape, there aren't 600 people there.

MR&M: So you concentrate on being supportive...

QJ: You gotta be. Records are too cold-blooded to have anything less than your best. You stay in the studio for months, come out with a sound, and they put it on the radio—*free*. That's the only chance you've ever going to get. And the sound has to make people want it, even though they've already heard it for free. There's no place to hide. You can *talk* all you want about what's on a record; all I can say is "put it on, let me hear it."

I imagine contours, shapes, and colors even before I get to the sound. I don't know what that's all about; it's just my way of thinking musically. MR&M: If you're dealing with something so magical, how does that affect pre-production where you don't want to do the tunes to death?

QJ: You have to think about it just like a director. One time I was doing what I call a "Polaroid collage" for dialogue and music in "The Color Purple"...something to feel out some of the letters in the book. Something for the people to play off of, even if it's wrong. I used some African music. Coleman Hawkins, C. L. Franklin (Aretha's father), and had Debbie and James Ingram read some of the script to just feel it out. And what happened was very beautiful...the audio experience is very pure and honest. And Debbie was saying, "If I could just have the book a little longer," and I said, "Debbie, that's just what I didn't want...for you to get everything down so it's all pat and everything." When she read it, there was this tentative and vulnerable quality. Man, it was the best. Sometimes that has to happen with singers where you have them do something totally opposite from what they expected to do; if they jump in, they surprise themselves. Sometimes you have to take the intellect out of it.

MR&M: How can you play those kinds of tricks on yourself for solo projects? In other words, is it hard to produce yourself?

QJ: Sometimes, but see, by not being an on-the-spot performer it's still easy for me to do my same thing. All I do is "go into somebody else's garden" on another record, and try to bring what I have to offer with me. On my album, they come into my garden. It's still painting with people. Even after all these years I look forward to each project, and I'm grateful that God lets me have that.

MR&M: Do you think that the art itself keeps you young?

QJ: Of course. There's no such thing as standing still in it. You have to be on it all the time. Everything that changes everybody else, including my kids, is what changes me. Hearing about all the current events famine in Ethiopia and all that everybody's affected by that, it's not just the domain of young minds or young spirits. It's everybody's problem...but there are positive things too, like landing on the moon. If you just stay in present time, don't get hung up too far in the future, and forget the old stuff—just stay right here, right now—I think you'll pick it all up and not have to worry about being behind. You'll be right on top of everything.

MR&M: I didn't want to talk too much about the past, but I would like a perspective on the changes you've seen over the years, especially with respect to production.

QJ: Well, I joked with my engineer about this one time ... they interviewed him once in Billboard about our association and everything else. and I called him up and said, "why did vou embarrass me like that?" He said. "what do you mean?" And I said, "The man asked you what was the biggest technological revolution in your career and you said electricity!" Actually, he said "tape" which was pretty close (laughs). Phil Ramone was my first engineer, and I remember when we were doing "The Genius of Ray Charles." I said it sounded fantastic, with sounds coming at me from left and right-Phil said it was something called "stereo." We go back that far, back to the days when there was no such thing as mixing.

MR&M: I wanted to get beyond the hardware, though. Were times more innocent then? Is there more concern with bucks and the bottom line these days?

QJ: The bottom line was always a concern. One thing I see that's different, though, or maybe I was more naive as a child—when I was 12, 13 years old—every record you picked up was an *important artist*. There were no peripheral artists. Decca was Louis Armstrong, Bing Crosby, Ella Fitzgerald—anybody that recorded was good, because there were only five labels. Today, my milkman could record if he had the right presentation, the right lawyer...

MR&M: ...and a good video... QJ: (Laughs) And a good video!

One of my dreams is to put Black music on the level where its music, its essence, is captured in a—I hate to use the word "structured" form, but that's what I mean. Yeah, that's right, he could get a deal...I'm not joking. A record company was almost like a Good Housekeeping seal, because when the record was put out, you knew the artist had quality.

The artists who survived 40 and 50 years, I don't think it's any accident why they were prepared to sustain that long. They had incredible training with bands; all of the band singers-Billy Eckstine, Peggy Lee, Frank Sinatra, Sarah Vaughn-they were all band singers and they're still here because they learned so much. I feel it's kind of sad that there's no training ground today. You're expected to be so big so fast, I hear guys crying at 27 about how it's almost all over. The media is so powerful and far-reaching that the thrust can make a monster out of you at 25. Think of what happened to Peter Frampton or Michael; I don't know whether that could have happened 30 years ago.

MR&M: It's almost like there aren't any "farm teams" anymore.

QJ: Yeah, and let me tell you that the first team is even a little bit shaky. Because if you don't have your stuff together, they can burn you out *like that.* The people who run into the studio and record one song, and it's number one, I consider that a big, big problem. Emotionally, you can warn those people to get their shit together because they're going to need it later. but nobody wants to hear that ... everybody's thinking about the limousines, the champagne, the star trappings... but not looking at what's going to happen five or ten years from now. If it happens to you at 23, you still got 50 years to go. That's a long time.

Still, though, now is a good time for music. I wouln't trade my time in music with anybody. To work with Count Basie, and Duke Ellington. have him play my songs, record with Louis Armstrong, the Swing Era, the be-bop thing...R&B...rock and roll...this is an incredible time. Next is to mix it up with film. It's exciting.

MR&M: There's one question everybody wants me to ask you: How do you break into the business if you want to do production?

QJ: Break into the business? Number One, get good. What I've found is there are a lot of people who are good at breaking into the business but they don't have anything to offer. Develop your skills so you have something to offer when you get discovered, because an opportunity doesn't mean much if you don't have your act together. My favorite saying is concentrate on getting *better* rather than getting *over*.

MR&M: So you think the cream eventually rises to the top?

QJ: It does, I swear it does. I think back to the album "Body Heat." That album introduced Minnie Riperton and Valerie Simpson. "Mellow Madness" introduced the Brothers Johnson and Luther Vandross...what they *do* speaks much louder than what they *tell* you they do. A hundred people a day hit you with material, but then there's something that makes you say "yes" when you've been saying "no" all day. Sometimes you have to gamble, really believe in somebody.

MR&M: Let's close with some questions about the "Evolution of Black Music" project. I think that eventually racist attitudes are bound to disappear...

QJ: I hope so, man.

MR&M: And when that happens, will people forget about where we came from musically? Do you feel it's necessary to preserve that aspect of culture before it gets lost, like the effort that's going on here in Hollywood to save old film prints before they're gone forever?.

QJ: Well, yes, but it goes much deeper than that. I look at it like this. If a united world looks back a hundred years from now and decides to review the 19th and 20th centuries, they'd pull out the available literature. They'd look at Hungary and find Bartok, Brazil and listen to Villa-Lobos, Grieg out of Norway or whatever, and so on. If they research America, they'd play Copeland. Charles Ives. Leonard Bernstein, and Gershwin...and it would probably be like Black music never existed. One of my dreams is to put Black music on the level where its music. its essence, is captured in a-I hate to use the word "structured" form, but that's what I mean. Beethoven's music is structured, and if you have good players, it will sound the same way every time, and that spirit will come back every time. Every time. And I don't feel that structure has been done with Black music; I mean something that shows the essence, the full range of it.

Starting at 479 A.D., man, with the Moors...that's how far I went back. And I thought it would only take me three months to trace the roots of the music! It came through and in-

All music is about communication. Music is powerful stuff, and it's a spiritual communication....It's a spiritual necessity. We're not talking about entertainment; it's a need.

fluenced the Spaniards during the time of the Inquisition, and Ravel. and Rimsky-Korsakov ... the Moorish thing was all over the place. Now fast forward to West Africa; various tribes went to Brazil, and it was not a slavery situation so you had pure African music mixed with Portuguese, Italian, and so forth. Brazil is probably the most musical country on the planet because of that spawning ground. As the music moved up the coast, it stopped at the Guineas, the Caribbean, Haiti-very strong African influence-and started to get diluted in Trinidad and Jamaica, By the time it hit Virginia, a lot of the African feel was gone. New Orleans, though: that's what was interesting. Protestants and Catholics, Spanish and French, multi-God worship the Africans said. "yeah, we can deal with that"—and (laughs) that's the birth of the blues.

In other places Blacks were physically strangled; their drums were taken away, because people feared them as a communication device. And they were right—the drums were a tremendous communication device. But percussion was so much a part of African music, they had to keep it going with their hands, feet, and voices. The entire story knocks me out; I'd been in the business 25 years before I started to understand what was going on.

MR&M: What's going to come out of all your research?

QJ: A lot of things. I think the "Evolution of Black Music" should be put on an educational basis, an entertainment basis. books ... all I know is that when I try to find out about the music, there's no one book I can go to. When I started the search I first went to musicologists...man, all the goodies were in sociology books! Black music is the only true history of what happened to the Blacks in America; all of the books were written by the conquerors and slaveowners. Every song was actually some kind of secret code like "we gotta get the hell outta here at 12 o'clock!" All the history is in the music. everything is in the music.

MR&M: Is this project something you're actually working on right now?

QJ: Every minute of my day. man. it's churning away no matter what I do. It fits in everything I do, like "The Color Purple." Whether it's modern jazz. or funk. or reggae—to me it's all about the same thing. There's a common den.. minator.

MR&M: Getting back to the concept of drums as communication... do you feel music is still about communication, or has it turned into more of an entertainment event?

QJ: All music is about communication. Music is *powerful stuff*, and it's a spiritual communication....It's a spiritual necessity. We're not talking about entertainment; it's a need. I mean, in a black neighborhood, the attitude is that the music is spiritual food. Before gas goes in the car, or the light bill gets paid, records come into the house. And I think in 1959, with Presley, that attitude started spreading to America in general.

I do see more people talking about music as a healing force...

QJ: People have to have it.

MR&M: And things like alternate scales, or just intonation...lots of interest in Third World music, and other types of sounds that seem to have gotten "lost" along the way...

QJ: Absolutely, absolutely. And you're also talking about music that came straight from the soil. You know damn well a bird didn't imitate a flute—it's just the reverse. Everything we do comes from nature's inspiration, because nature is the greatest designer of all time. I think most heavy classical writers all used nature as the guideline to shape and structure art. What better source is there?

Stravinsky said in "Poetics and Music" that the best creator is a good observer. That's true. Pay attention, and your art will do better for you.

gene kalbacher Richard Stoltzman from Mozart to Monk



When Richard Stoltzman walked to the podium to present the Grammy Awards for the classical division, he expected—and secretly hoped—that he would be handing a coveted trophy to a jazz musician. A jazz musician? In a ceremony saluting classical music achievement? Yes. Stoltzman, himself, is a Grammy-winning clarinetist (his Brahms—The Sonatas for Clarinet and Piano, OP. 120, with Richard Goode, won the award the year before). Thus he predicted that Wynton Marsalis, the 21-year-old trumpet wunderkind who has turned the jazz world on its collective ear in the '80s, would walk away with the honors for best jazz album and best classical album. Sure enough, Marsalis was the first musician who has ever copped both prizes!

Stoltzman, the 41-year old clarinetist who has been called "an artist of indescribable genius" and further lauded for his solos with more than 60 orchestras worldwide, can readily identify with Marsalis: The trumpeter, a New Orleans native who grew up with jazz (his father, Ellis, is a well-known jazz educator and a noted pianist), dazzled the jazz community with his first solo album and then followed with a twin-killing, simultaneously releasing a jazz-quintet LP and a classical recording, Haydn/Hummel/L. Mozart: Trumpet Concertos. Stoltzman,

distinguished himself as a virtuoso in a league with Jean-Pierre Rampal and James Galway, has now turned to jazz, devoting segments of his largely classical performances to the music of the late composer Thelonious Monk. So, whereas Marsalis has crossed from jazz to classical music, Stoltzman has crossed from classical to jazz.

To some, the realms of classical music and jazz are as antithetical as the North and South Poles, the yin and yang of nonpopular music. But to most musicians and listeners with educated, open ears, both are forms of classical music—European classical and Afro-American classical music. The differences between these forms are enumerated more often than are the similarities, yet the serious artistic intent and the enduring value of both musics, are a sufficient commonality to attract talents such as Marsalis and Stoltzman.

Stoltzman, born in Omaha and raised in San Francisco and Cincinnati, was exposed as a youngster to the music his father revered-the sweet swing of Lester Young and the big-band excitement of Tommy Dorsey and Artie Shaw. He also took a liking to his father's musical instrument, the clarinet, which he claims to have "stumbled over, almost literally," in the house. Jazz, due to his father's interest and amateur playing status, was the officially sanctioned music of the Stoltzman household. Curiously, young Richard, who took up the clarinet at the age of 8, didn't attend his first *classical* recital until he started college.

At Ohio State, where he studied as an undergraduate. Stoltzman held a dual major in music and mathematics before deciding on a career in music. Toward that end, he earned his Master of Music degree at Yale University and, in 1967, began a 10year association with the Marlboro Music Festival in Vermont, where he met pianist Peter Serkin, with whom he formed the chamber ensemble TASHI in 1967.

Besides recording seven albums with TASHI. Stoltzman has made a number of solo albums. including works by Beethoven. Mozart and Stravinsky. On the clarinet, a querulous instrument in the hands of a novice who cannot tame its inherent pitch-scrambling. Stoltzman is an acknowledged master, a virtuoso who draws a velvety tone and limns melodies with liquescent ease. The first clarinetist ever to perform a recital at Carnegie Hall, he is a bonafide classical superstar. Nonetheless, his affection for Brahms and Mozart is matched by his appreciation for Monk and Charlie Parker.

Stoltzman, who lives in Oakland with his wife and two children, conducted the following interview with Modern Recording & Music from his hotel room in Denver, where he was performing with the Denver Symphony. The clarinetist, whose boyish looks imbue his performances with an ingenuous charm, was anticipating the Grammys and his Carnegie Hall appearance, at which he would perform a Monk segment with bassist Eddie Gomez, with a mixture of excitement and trepidation. Stoltzman's musical insight in the following discourse was leavened by his humor, sensitivity and humility as he discussed what was to be a turning point in his career and a strong personal challenge.

Richard Stoltzman: It's great for me, first of all, to be playing with Eddie Gomez. It's almost a dream, in a way. I've listened to [pianist] Bill Evans's records for so many years. After Scott LaFaro, hearing Eddie and want to hear them. And we did a concert in Los Angeles and [keyboardist] Chick Corea came. I was more nervous knowing he was in the audience than if I'd been playing for some very heavy classical people.

MR&M: There is a schism, real or imagined, between European classical music and Afro-American classical music, which is jazz, for both musicians and listeners. Yet both aspire to serious, creative if not highbrow, mentalities. It shouldn't be so surprising that there is so much overlap between these two seemingly mutually exclusive classical musics.

RS: I think there is [considerable overlap], especially in the listener category. What I have to be careful about is not to be a dilettante about it, and to realize, and I do, that to be a fine jazz artist is an entire capability in itself. It's not something you sort of touch on lightly. I have a little trepidation about doing this [jazz segment]. Thanks mainly to Eddie's encouragement and...trying not to make me uptight about playing. I've felt I can go ahead and just do it.

For instance, it's so incredible how [trumpeter] Wynton Marsalis does his playing. It's great to see somebody

I'm still a little bit unsure where the jazz and classical worlds are connecting and where they are miles apart. I don't know.

1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1906, 1

play with [Evans]—I mean, he was a part of that legend, in a way. Somehow, meeting Eddie and getting up the nerve (laughs) to ask him to play was really amazing.

Modern Recording & Music: When you contacted Eddie to play with you, was he familiar with your work?

RS: Well, he said he was. I hardly believe it, but he said he was. I'm still a little bit unsure where the jazz and classical worlds are connecting and where they are miles apart. I don't know. I remember being shocked when the TASHI group was playing some place in Europe at a concert; we were playing basically a classical program—the *Messiaen Quartet* was in there—and [guitarist] John McLaughlin was at the concert. I was so surprised that he even came, let alone that he would know the group

www.americanradiohistory.com

do something with so much integrity in both fields. No compromise at all. He's a young guy! He's 21. It's incredible! When I think what I was doing at 21—I was blowing my nose or picking it (laughs)! I'll be doing the introductions for the Grammy presentations for the classical division, and I just have a feeling, although I myself am nominated for one of the awards, that he will get not only the jazz but the classical award. So I'll finally get a chance to shake his hand, I hope.

MR&M: Who knows? Maybe you'll get to play with him someday. You'd benefit from one another.

RS: I don't know (laughs). That's very kind of you. He's up there, he's in a league by himself practically. I find that the stuff he's doing is very satisfying from a musical standpoint. That he is a success I find even more

MODERN RECORDING & MUSIC

amazing, because it seems nowadays that to be a success you have to go through so much hype-orama.

MR&M: It's interesting that you should mention Marsalis, because one can make an analogy between your recent work and his. He simultaneously released both classical and jazz albums; in fact, he was the first American artists to do so. Similarly, you, an established classical superstar, are now venturing into jazz.

RS: But I've been thinking about playing jazz, wanting to do it and working toward it for 20 years (laughs), for as long as he's been alive. It's taken me this long to get up the courage.

MR&M: But your Monk segment isn't your first venture into jazz. You've previously performed works by Keith Jarrett, Charlie Parker, Eddie Harris and Ornette Coleman. Were they done as portions of largely classical programs?

RS: Yes. The people who will buy tickets to hear me are basically classical audiences. If I went down to play at a [jazz] club, nobody would show up. So I haven't gotten to the possibility of doing all-jazz programs. There are good and bad things about that.

I know that putting in your dues from 10 to 2 every night, and playing those same tunes for many years, provides you with a kind of backlog of experience and intelligence to draw on when you're performing jazz pieces. On the other hand. I feel very good playing, or trying to play. jazz with people like Eddie. It only feels good, so I can just go by that.

MR&M: There's no better barometer than feeling.

RS: Yes. And although maybe I haven't paid my dues in the clubs for many years, I feel I've paid dues in other ways, and I've learned so much. It's [jazz] like another chambermusic experience. That's what it feels like to me.

MR&M: When you've performed jazz compositions in the past, were you accompanied by a bassist?

RS: No. I've only done things with piano. mostly with a friend of mine named Bill Douglas, who I went to school with and who plays both classical style and jazz style well enough so that the two have their own entity. And that's sometimes hard to come by in a pianist. For these concerts [in Carnegie Hall], I'm using Irma Vallecillo, and she is a wonderful pianist but she basically admits, herself, that she is a classical, straight-ahead pianist and that's it.

MR&M: Will she be performing with you and Eddie in the Monk segment at Carnegie Hall?

RS: No, except that we're going to be doing a little encore thing on "Rhythm-a-ning." I asked a friend of mine, Frank Bennett, to create comping chords for her for about four or five choruses. She just learned them, straight out. She doesn't play solos. she just does the block chording behind it, and it works, luckily.

But I've found that there's a different freedom playing with a bass. It's really a two-part counterpoint, and that's why the Monk pieces seem to work so well, because his melodies are so clever and well thought out. Where the notes are, and the spaces are, has such a contrapuntal aspect to it that the clarinet and the bass can kind of weave around in those melodies and do very nice things. And Eddie said to me that he very much enjoys playing unamplified, which was a surprise to me. In his group, Steps Ahead, everybody has to be amplified. It turns out that because of the drums you have to be amplified; once you get cymbals and so on, the decibel level begins to rise.

MR&M: Why, of all the Monk tunes, have you chosen "'Round Midnight" and "Well You Needn't," to perform at Carnegie Hall?

RS: I tried to think of the tunes probably I'm being a bit optimistic that even classical musicians would know. "'Round Midnight" and "Well You Needn't" are really basic Monk tunes that maybe have been played more than any others. Haven't people put lyrics to "'Round Midnight"?

MR&M: Yes. The song is part of the on-stage repertoire of Jon Hendricks.

RS: So, to me, they're about as "classical" jazz pieces as I can think of. And I didn't want to do so-called standards like Jerome Kern or George Gershwin. I kind of wanted them to be pieces in the abstract more, so to speak.

MR&M: You mentioned quite aptly with Monk tunes, Dick, that the spaces between the notes can be as fundamental as the notes themselves. I find a certain irregular, jagged, asymmetrical quality in many of his tunes. To me the experience of listening to Monk is akin to walking upstairs in the dark and not knowing where the last step is. Never fearing falling. mind you. but treading my way lightly.

RS: (Laughs) But it's so exciting because you're getting higher and higher.

MR&M: In the narrowest sense, might it be argued that Thelonious Monk was one of the first minimalist composers? I find certain correlations with the composer Phillip Glass.

MR&M: I was thinking in terms of Monk that, although there's plenty of room for improvisation and no harmonic stasis, there is a conceptual wholeness, a shrewdness for the overall design that reminds me of certain minimalists.

RS: Oh, yeah. It turns out I did this same [Monk] concert more or less in San Francisco. not with Eddie Gomez but with a bass player I found in the book. Who came to the concert but [bassist] Chuck Isreals, and as it turns out, he's a neighbor of mine... He came back [stage] afterwards and said, "I liked the concert, but how

adder a der ander an

The people who will buy tickets to hear me are basically classical audiences. If I went down to play at a (jazz) club, nobody would show up. So I haven't gotten to the possibility of doing all-jazz programs. There are good and bad things about that.

FEBRUARY 1985

come you're not playing the Monk tunes the same way you play all the other pieces—that is, with the same kind of concern about the correctness of it." In other words, I had sort of just played what I thought the tunes were like. Well, he took me over to his house and said, "Here, this is the version Monk wrote; this is exactly where the notes go." And it was very helpful.

MR&M: That, in a sense, is close to the conventional connotation of classical music as a strictly notated form. So we have a confluence here of the two musics, classical and jazz.

RS: Right. And I realized that he was absolutely right. If I was going to play jazz on a program. I had to treat it exactly the way I treat any other piece on the program. with the same kind of respect for what the composer had to do, and playing with the style of the composer in mind. He gave me a lot of good ideas, which I'm very thankful for.

MR&M: There's a quote about you in *Time* magazine. Dick, in which a recording engineer is said to have remarked, "You're the guy who has no beginning in your notes." Was he referring to your attack, or lack of it, on the clarinet?

RS: Yes. that's all. He was referring specifically to a TASHI recording of the *Messiaen Quartet*. There's a solo piece for the clarinet in one of the movements. One of the tones is supposed to start from nothing, and when he was trying to splice it together, he could not find exactly where [it started]. Before digital, anyway, they would run the tape back and forth over the magnetic head until they got to the place where the tone actually starts, and then they splice it. He couldn't find the place to splice.

MR&M: Monk's music, by contrast, is tailor-made to a strong horn or reed attack, or bite, witness the work of Johnny Griffin, John Coltrane, Coleman Hawkins and Charlie Rouse. It would seem that the possibilities, in this regard, are great for you.

RS: Yes, I hope. I'm in awe of people like [Mike] Brecker, Marsalis and his brother [Branford, a saxophonist], but I'm a classical musician and I have certain abilities and limitations. So I guess what I've decided is, why should I have to be excluded from this very fine [jazz] music. I have to approach it from my own background and esthetic and style. But part of that comes, in a way, to the surface of the music—



Bassist Eddie Gomez and Richard Stoltzman.

dynamics. articulation, tone shadings, perhaps. that maybe other players aren't concerned with or don't need to be concerned with because they're doing their other stuff.

MR&M: What you're asking, in other words, is: Why should I have to alter my musical makeup in order to play this music?

RS: That's it. I think you don't have to. Somebody gave me a tape of a Keith Jarrett interview, where he was talking about that idea. Somebody was asking him, now that you're playing Bartok or whatever, instead of doing solo concerts, it must be a lot easier. He said. "No. it's exactly the same." You still feel that same anticipation and excitement of now knowing what's going to happen, not because you don't know what the notes are, but because you're creating that space there as it happens on stage. That's what he said, and I feel the same way. I don't have to really screw my head around a different way.

MR&M: I don't recall having heard any Monk times played on clarinet. The closest thing I can think of is an album of Monk tunes recorded years ago by soprano saxophonist Steve Lacy for the New Jazz label. Have you heard that one? What instrumental configuration, if any, served as a role model or precedent for your Monk program?

RS: Oh, yeah (thinking). I did hear that. My brother listens to a lot of jazz

and he has a lot of Monk records. Yes, he played that for me once. But I hadn't thought of that [album] as being something that would have been in my consciousness. But that's true: the soprano sax does have a kind of kinship to the clarinet.

MR&M: Staying in tune is a perpetual problem on the soprano saxophone. Does the clarinet have the same inherent problem?

RS: For sure. Many string players have told me that they enjoy trying to do stuff with me because I try-I don't always succeed-to play in tune with the [other] instruments. If you just put your fingers down on the clarinet and say. "This is F sharp, folks. Take it or leave it," you really can't function with other musicians, begause the clarinet is always out of tune; it's never all in tune. If you're not willing to constantly adjust the instrument at all times to the temperament of the other musicians, then you're putting the instrument ahead of the music. There are times when it can't be helped-when the piano is out of tune or it's just so hot that all the pitches of the instruments go wacky.

MR&M: How do you mic your clarinet in the recording studio?

RS: The reed on the sax or on the clarinet is inside the mouth, so the tone, the actual sound, starts inside your head. And the sound comes out of your *nose* (laughs). I don't want to be gross, but it comes out of your head and, of course, all the holes of the

instrument, which are located on the top and on the sides and then through the bottom. So it's almost like a sieve—it just leaks out from everywhere, the tone. Engineers have said that if they really try to capture the true tone of the clarinet, it's almost impossible.

Ĩ

ĥ

+ 36

MR&M: Does your micing approach depend on the repertoire?

RS: Yes, it varies according to the repertoire. It seems that the mic'ing that is most satisfactory is a couple of mics just kind of hung up there, and balance and everything set up by the musicians. That works in many classical chamber-music situations. I've not recorded in a jazz situation, and I don't know what would happen.

MR&M: Do you personally set up the microphones in the studio when you're about to record?

RS: Oh, yeah. That usually takes one session. You listen back to something and say. "God, that sounds like a harmonica or an accordion," or "That sounds like some kind of electronic tone. It doesn't sound like the clarinet." Or else it's a little too close and you say, "I can hear saliva on the reed, or keys clicking." And it seems that digital isn't helping that much. I don't find that digital provides that much enhancement of the true tone: it seems. in a way, to pick out qualities that are better left not heard.

MR&M: In a classical context, where do you customarily place your microphones to get the best sound?

RS: For the Brahms [clarinet] Sonatas that 1 did with Richard Goode, there was a mic placed about five feet or so on the floor, pointed towards the bell of the instrument, and then another mic—1'm not sure which kinds of mics—was placed above my head and in front of me about maybe 10 feet, aimed towards the main body the instrument. And then in back of that was what you'd call a room mic, which picked up the sound of the instrument in the hall. That was done by Max Wilcox.

MR&M: Dick. what are your earliest recollections of jazz? I understand that your father was a jazz saxophone player.

RS: An amateur saxophone player. A saxophone lover. He loved to listen to Lester Young. In fact, his name is Lesley, and it was the greatest thrill for him when the guys he sort of jammed with on the weekends would call him Lester. And Ben Webster, he loved Ben Webster. In fact, he took me to hear him once; he played in a bar someplace when we lived in Pittsburgh.

MR&M: So how did the clarinet enter the picture? Did your father also play the clarinet?

RS: Yes, he played the clarinet. When he was in school he probably made money doing dance-band things. Of course, that was during the Glenn Miller days. He played clarinet and alto sax. So there was this clarinet [in the house], and I just think I stumbled over it, almost literally, as a little boy. And he rented a metal one that I couldn't break, and I started off on that.

MR&M: As a youngster, did you also hear classical music around the house?

RS: No, come to think of it.

MR& M: Yet you've become a world-renowned *classical* musician. It's curious, then, to hear that jazz, not classical, was your first listening experience as a youngster.

RS: In fact (laughs), this is very embarrassing, but I never went to a chamber-music concert until I was in college; I never heard a string quartet (laughs). Oh, God! That's terrible to say that. The kind of music I listened to was big-band music, and then I remember discovering, oh, when I was in high school, the Giant Steps album [by John Coltrane]. I just couldn't believe it. I remember playing it for my dad, and that was when the generation gap began. He said. "That's no good. That guy plays too loud. He doesn't have a good tone." And I said, "But listen to the chords he's doing." I remember 1 got the

Miles Davis and Bill Evans thing *Porgy and Bess*, and I thought it was the greatest, most sensitive playing. My dad said, "It's out of tune: he plays flat there." I thought [of my father], "He doesn't *know*!" My father was absolutely against my going into classical music.

MR&M: How does he feel now that you're world famous?

RS: Unfortunately, he died before I ever got to a point where he would've known.

MR&M: I'm sorry.

RS: He was worried about what I was going to do for a living (laughs), and it's too bad, it's too bad, because he missed out on all of this. If he had known that I actually went to Benny Goodman's apartment and played duets, he would've thought I was okay.

MR&M: How did your meeting with Goodman come about?

RS: He played with Peter Serkin quite a lot. Peter and he did recitals together. and I think Benny heard our TASHI group. Then he asked Peter to have me call him. And I called him and he said. "I just want you to come over. and let's play some duets."

MR&M: Were you nervous about going to his apartment?

RS: Oh, God! Are you kidding? I was so nervous. This guy's a legend. I felt absolutely like I was going to die, but it was just fine. He was very easy. He's just the way he looks. We played some duets and he asked me about my mouthpiece (laughs). It was almost anticlimactic in a way. It was like the

If you just put your fingers down on the clarinet and say, "This is F sharp, folks. Take it or leave it," you really can't function with other musicians, because the clarinet is always out of tune; it's never all in tune. If you're not willing to constantly adjust the instrument at all times to the temperament of the other musicians, then you're putting the instrument ahead of the music.

history com

FEBRUARY 1985

Wizard of Oz where you hear this tremendous voice, and then there's this little guy operating the machine.

MR&M: Dick, you mentioned earlier that you didn't attend your first chamber-music performance until you were in college. What accounts, then, for your amazing affinity for, and virtuosity with, classical music?

RS: It was spending ten summers at the Marlboro Music Festival [in Vermont] with musicians who were totally dedicated to that kind of playing and interested more in rehearsal than in performance. It was there that I began to realize the wonders you can discover inside a piece of music by constantly working at it in rehearsal situations, in a giveand-take thing, with other likeminded souls. Perhaps that was the equivalent of playing in clubs, where you play the same pieces over and over again; you don't rehearse them. But in a sense, jazz musicians do their rehearsing right out in front. I know they practice, too, of course, but they do lots of their experimentation right there in front of the people.

MR&M: That's where you paid your dues. And, maybe, playing in such rehearsal situations can be even labored for many years before mass attention came his way.

RS: It's embarrassing in a way. I mean, I'm very happy, I'm lucky, and I feel wonderful about it. It [the embarrassment] comes a little bit when I talk to some jazz musicians like Eddie Gomez or Chuck Isreals or another wonderful bass player. Marc Johnson, who played The Paris Concerts [Elektra Musician] with Bill Evans. You think of these people: They must be rich, they should be on the top of the success heap in America-but they're not. They're just scuffling, and I just hope I can share this good fortune with people and be somehow worthy of that kind of public acceptance.

... We're all in the same boat. Classical musicians and jazz musicians—they're a minority. And the audience for that music...is a minority.

MR&M: In one respect, I suppose, it's good that jazz and classical music are minorities because it keeps the fast-buck accountants and lawyers in pop and rock music.

RS: I think so. Sure, it's easy to say that when you have plenty to eat and a nice place to live. I can see myself in a different situation, having to really scuffle for any gig at all and being

...We're all in the same boat. Classical musicians and jazz musicians—they're a minority. And the audience for that music...is a minority.

more demanding than playing before an audience.

RS: Oh, oh, absolutely. Performing is almost a *cream* situation: You're enjoying it, people are applauding, and they're there because they want to get into it. It's wonderful. But working with musicians and agonizing over each thing and trying to get people to play the way you want, and them trying to get you to play the way they want, and all at the same time trying to get it the way Brahms wanted it, is very satisfying and constantly challenging. We did that for two months, for 10 years.

MR&M: Have you ever had to pinch yourself, in all honesty, and convince yourself that you're really a star? Monk, on the other hand,

re integrity and everything when you've g, got a family and you're trying to ht bring in some bread. MR&M: Pianist McCoy Turner, in a recent *down beat* interview, stated to that the jazz life is paradoxical

that the jazz life is paradoxical because while the artistic possibilities of the music are infinite, the commercial possibilities are quite finite.

happy to do whatever would come up,

just to get something to play. But it's

very hard to keep your esthetic

RS: There's a kind of trembling of anger among musicians. who *know* that people would love this music if they would listen to it and if they could hear it. You just know it. So sometimes you just want to shout.

MR&M: One of the principal differences, from a layman's stand-

point. between jazz and European classical music is the former's improvisational orientation. Now that you're involved with both idioms, what are your feelings on the role of improvisation?

RS: What is improvised is a little different. When you're improvising on themes of Monk, you need to be very much conscious of what it is that he created, and then try to embellish that as best you can, keeping with that style but without really having any preconceived awareness of what the particular notes are that you're going to play at that moment. For instance, the first piece on the program I'm playing [at Carnegie Hall] is a chromatic fantasy of Bach. It's basically an improvisation that Bach wrote out. He wrote out the notes, and you can play the notes, but that won't provide the chromatic fantasy that Bach, I think, imagined. What has to be improvised in that situation is the quality of the arpeggios and scales, playing them in the right spaces at the right times and giving the tension and release that will give that music the same kind of life you're going to give to an improvisation on a Monk theme.

MR&M: Since you've performed Ornette Coleman pieces in past performances, what is your estimation of his harmolodic approach—a highly modulated system in which the harmony, melody and movement occupy equal, interdependent positions?

RS: I can understand intellectually what he's talking about. I think, in a way, there's some aspect of Schoenberg in that. Schoenberg also imagined linear and horizontal music to be quite one and the same thing, that the piling up of notes in a chord or the stringing out of notes in a melody were both connected absolutely... I don't have the intellectual acumen or the bigness of mind to be able to make that happen myself on my instrument.... But I haven't studied enough of his theories and his music-making to be anything but an admirer.

MR&M: What is it about his music, then, that appeals to you?

RS: I think because I remember, in high school, hearing some of his first albums with his plastic sax. I remember there was an Atlantic album called *Free Jazz*, and that, to me, was more high-level chamber music and contemporary-sounding than the music I was going to be studying in college of Schoenberg, Webern and the 12-tone school. And the effect was achieved through improvisatory playing as opposed to totally complicated, involved matrices of compositional technique.... The [Coleman] pieces that we do are from way back, like "Ramblin'" and "When Will the Blues Leave?" They're very funky pieces [laughs], not the advanced things he's doing now.

MR&M: Many musicians I've spoken with, particularly the older ones, describe their college music education as definitely biased against jazz. Did any of your teachers appreciate Ornette Coleman and the other jazz composers you were discovering?

RS: I can only remember one or two instructors at Ohio State who had a respect for and awareness of contemporary jazz players. I remember that we tried to form a band, a jazz workshop. There wasn't such a thing at the school, and (laughs) they wouldn't even give us a room. We finally managed to do something after-hours, with the janitor unlocking the place so we could rehearse. And we managed to get the band to go to Villanova and Notre Dame. There was a great arranger who came out of that, Ladd McIntosh, who's now in LA; he did some incredible arrangements using piccolos and bass clarinets and all kinds of stuff. I found that to be one of the most exciting parts of my education at Ohio State. It had nothing to do with the curriculum, wasn't given any credit, wasn't even acknowledged.

MR&M: So, looking back, your music education there was somewhat blinkered.

RS: Yeah. But actually, on second thought or hindsight, one of the reasons you go to school is not just the courses; you go there for all of the rap sessions and all of the combining of various intellectual personalities... I did get out of my college years a chance to progress in a jazz sense, but it wasn't like going to Berklee.

MR&M: Back to the Monk segment. You did six concerts with the Monk feature before Carnegie Hall. Have the audiences been receptive?

RS: Amazing. We were so apprehensive. I mean everybody, Eddie too. What was going to happen when we started playing these tunes after doing mostly a classical recital? Would the audience have coughing fits (laughs) or just walk out?...They start out being disbelieving, then they start saying, "Wow! What's happening?" Pretty soon, after about When you're improvising on themes of Monk, you need to be very much conscious of what it is that he created, and then try to embellish that as best you can, keeping with that style but without really having any preconceived awareness of what the particular notes are that you're going to play at that moment.



10 minutes, they're totally involved. It was great.

MR&M: Have you considered recording an album of Monk material?

RS: For want of a better word, the "classical ladies" (laughs) have come back and said (affects meek voice), "Gee, do you have Mr. Monk's pieces?" I thought it was so cute that they wanted to hear these pieces again. I said, "Well, no, I don't." That's the first time it really occurred to me that it might be of interest to people to hear this [Monk's] music played by Eddie [and me]....We've got composers on the program—we've got Bach, we've got Reger, we've got Poulenc, we've got Monk.

MR&M: Have you done any jazz composing yourself, Dick?

RS: Just a couple of tunes. I wrote a tune for my wife, because out of that kind of feeling you sometimes can come up with something you want to put into music. But nothing much. It hasn't been the right time, but I get the tingle of it...

POSTSCRIPT

Despite his nervousness about performing the Thelonious Monk segment at Carnegie Hall, the program was very well received. Tim Page, reviewing the concert in "The New York Times." wrote: "There are few artists so acutely aware of the expressive possibilities of silence as Mr. Stoltzman. An extraordinary musical colorist, he used the celebrated resonance of Carnegie Hall with immense skill."

Richard Stoltzman Selected Discography

Solo Recordings

- Weber Clarinet Concerto No. 1 in F Minor, Op. 73
- Mozart Andante in C. K. 315
- Rossini Theme and Variations for Clarinet and Orchestra (with the Mostly Mozart Festival Orchestra and Alexander Schneider, conductor) RCA
- Brahms Clarinet Sonatas (with Richard Goode) RCA
- The Art of Richard Stoltzman (with Irma Vallecillo) RCA

TASHI

Messiaen Quartet for the End of Time RCA

TASHI Plays Beethoven RCA TASHI Plays Stravinsky RCA TASHI Plays Mozart RCA TASHI Plays Takemitsu RCA

Chamber Music

- Brahms Clarinet Quintet (with the Cleveland Quartet) RCA
- Beethoven Clarinet Trio Marlboro Recording Society
- Mozart Serenade No. 10 in Bb Major Marlboro Recording Society (conducted by Marcel Moyse)

- 7

Family Portrait

If you've got a growing family, sooner or later you need a picture with everybody in it. It's a statement of family pride, and we humbly admit that we are pretty proud of this group.

There was a time when most people didn't recognize a Crown PZM[®] as a microphone - even when they looked at one. Times have changed. Billboard Magazine reports in their most recent brand usage survey that 37.5% of U.S. recording studios use Crown PZMs.

This sort of demand, multiplied by many other applications, has made the family grow, with new microphones tailored for new users. In fact, the number of new members in the planning process is larger than the number in the picture. Since a lot of our friends have only used one or two models so far, we thought we'd better introduce the family. The next time we may not be able to get them all in one picture.

Keep an eye on this family. Right now it's one of the newest and best. It just might get to be the biggest.

PZMs from Crown. Call or write for your family tree.



1718 W. Mishawaka Rd. Elkhart, IN 46517 (219) 294-5571

Circle 46 on Reader Service Card

At long last, all the questions you ever asked...all the problems you ever grappled with...are answered clearly and definitively!



in 256 fact-filled pages, liberally sprinkled with over 500 illuminating photographs, drawings and diagrams, John Eargie covers virtually every practical aspect of microphone design and usage.

Completely up to date, this vital new handbook is a must for any professional whose work involves microphones. Here are just a few of the topics that are thoroughly covered:

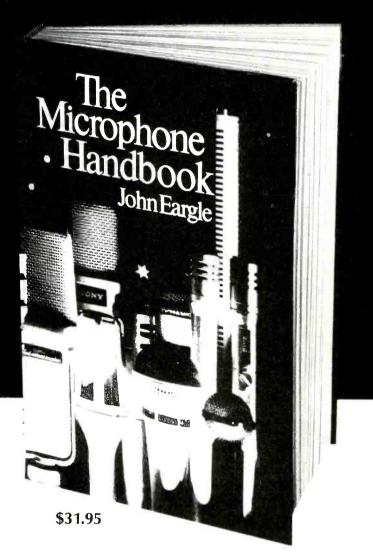
- · Directional characteristics-the basic patterns.
- Using patterns effectively.
- Microphone sensitivity ratings.
- · Remote powering of capacitors.
- · Proximity and distance effects.
- · Multi-microphone interference problems.
- Stereo microphone techniques.
- Speech and music reinforcement.
- Studio microphone techniques.
- Microphone accessories.
- And much, much more!

THE MICROPHONE HANDBOOK. You'll find yourself reaching for it every time a new or unusual problem crops up. Order your copy now!



JOHN EARGLE,

noted author, lecturer and audio expert, is vice-president, market planning for James B. Lansing Sound. He has also served as chief engineer with Mercury Records, and is a member of SMPTE, IEEE and AES, for which he served as president in 1974-75. Listed in *Engineers of Distinction*, he has over 30 published articles and record reviews to his credit, and is the author of another important book. *Sound Recording*.



ELAR PUBLISHING CO., INC.

1120 Old Country Road, Plainview, NY 11803

Yes! Please send _____ copies of The Microphone Handbook @ \$31.95 per copy. (New York State residents add appropriate sales tax.)

□ Payment enclosed. Or charge my □ MasterCard □ Visa

AC	ct	#

Name

-

Exp. Date

(please print) Address

City

State/Zip

Signature

Outside U.S.A. add \$2.00 for postage. Checks must be in U.S. funds drawn on a U.S. bank.

If you aren't completely satisfied, you may return your copy in good condition within 15 days for full refund or credit.



Looks At Monitor Speakers



Studio Monitor Speaker Eystems

Studio monitoring speakers are something you tend to buy only once in a while and then learn to live with. A good pair of monitors is going to cost quite a bit. So, careful thought and evaluation is needed before you plunge.

The perfect monitor will be an exact reproducer of the studio live sound and/or the tape recording. But "perfect" is a goal, not to be achieved as yet perhaps never. What this means, is that any studio monitor is a compromise. You must evaluate the sonic quality, of course, but size and price is part of that package too.

There is no substitute for your own ears. You are the only judge of what is good for you. Within the constraints of price and size, sonic quality is best judged in careful listening tests. If you can, try not to compare more than two to three monitors at a time, always in stereo, never just one at a time. Try to find more than one location to do your listening. What sounds great in one store or studio, will not sound the same somewhere else. Try to buy a pair finally with some reasonable return or exchange arrangement, so that if it turns out that they are just not "right"in your control room, you still have some options.

The Charts

The charts that follow can supply some of the information you need, tut not all. You still must audition, and no chart offers too many clues on how a speaker will sound.

It should be understood that what is in these charts has been supplied by the respective manufacturers. We've tried to get them all, but we may have missed some, and we could not persuade every manufacturer to return the forms we had sent them, no matter how much we tried.

Each of the specifications describe some physical aspect of the speaker system. Perhaps the most difficult to assess is Frequency Response. Almost any speaker can be made reasonably "flat" over a fairly wide range. What our charts could not say is just how much power is delivered at those extremes, and how low in distortion it is.

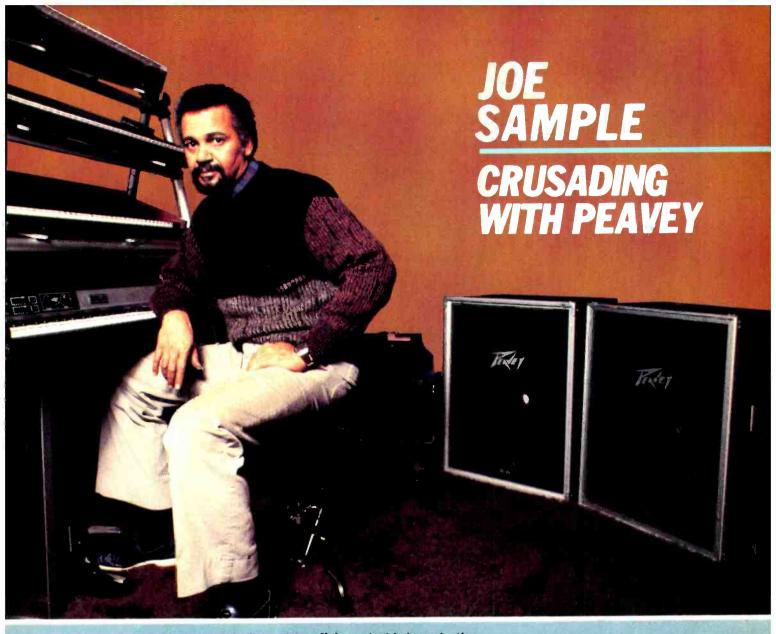
Generally, you can expect that the larger the worfer, the better the bass response will be. But, it is possible for a good eight-inch woofer in a proper enclosure to deliver better bass than a fifteen-inch woofer in a lessthan-ideal enclosure. So, we're back to auditioning, again.

Each of the specification questions was carefully chosen to give you a fair picture of the price and size/weight aspects. While it can be considered general that the more you spend, the better you get, this is no more a rule in pro audio as it is in any other consumer product area.

The most important specification may well be the Features section; here is where the manufacturer has the opportunity to tell you about the special or unique features of his product.

In these charts we have used a dash - to indicate that the manufacturer did not supply the information needed. A blank column simply means that the informaticn is not applicable. Use these charts to get close to a few choices. Then go out and listen.

Now, on on to the charts.



Joe Sample. A musician's musician. Ne's worked independently as well as with his long-time cohorts, The Crusaders (Wilton Felder and Stix Hooper). He's recorded with the likes of Michael Franks, Steely Dan, Joni Mitchell, Joan Baez, Lee Ritenour, Al Jarrean, Marvin Gaye, B.B. King, Larry Carlton, Tom Scott, Ray Charles, Gladys Knight, Hoyt Axton, Ronnie Laws, Paul Horn ... And the list goes on. With such a varied lineup, there's one thing we can deduct. Joe Sample isn't afraid of change.

He is skilled at not only the acoustic piano but the organ, electric piano, Clavinet, and a variety of synthesizers all of which can be witnessed on one or more of his 48 albums. Joe still believes that composing is much like painting. His portrayal of this ever-changing world can be heard and felt on all of his compositions whether they be classical, jazz, pop or R&B.

> At Peavey we knew that for someone as adaptable to new instrumentation, new technology and new musical styles as Joe, his sound reinforcement equipment had to be the same... adaptable, dependable, portable, and of high quality. And this is why to Joe Sample, the artist, composer, musician, Crusader, we say "Thanks" for choosing Peavey sound reinforcement to help portray some of the most incredible musical portraits ever.

JOE'S PEAVEY SET-UP: Peavey 801 Stereo Mixer Peavey Stereo Graphic Equalizer Peavey CS-400 Stereo Power Amp Peavey 115 International Enclosures (2)

For a copy of the Peavey Monitor Magazine (special keyboard issue) featuring Joe Sample and other keyboard artists send \$1.00 to: Peavey Electronics, Dept. KB 285, 711 A Street, Meridian, MS 39301.

"THE MUSICIAN'S EDGE"

©84 PEAVEY ELECTRONICS CORP. TELEPHONE: (601) 483-5365 / TELEX: 504115

southes	These are accurate cound reinforcement and studio speakers for monitoring crit- ical audio material.		Three way system time aligned by mechan- ical position of drivers, biamplified.	Has 200W coaxial monitor system, line corrected by mechanical positioning of diaplitagms.					Optimally vented, Thiele aligned enclos- ure.Rack mountable with optional brack- ets. 91dB SPL, 1W/IM.Acoustic lens twtr.	*Has internal 50W amplifier with balanced and unbalanced bridging inputs. Acoustic	
price s	279.00		2200.00	00° 5671		200.00	275.00		249.00	499.00	
in. Type He effect tos. Weicht, pric	60		162	41.		r i	'		28	33	
dimentian in transition in the state of the	1.2k		160 400	1 zuu		2500	2500		2000	2000	
	horn		comp. twtr.	cōmµ. coax.		suft dome	soft dome		dome	dome	
ut uau in	3.5x 10		1.75x 1.0	2.0x 1.0		1.0	1.0		1.5	1.5	
			a1100								
Ariver 1			10								
nce onne Resp., + 1 - d'B in. Ince onne Resp., + 1 - d'B in. Frequency Resp., + 1 - d'B in.	cone		cone	0100		conc	cone		cone	cone	
resea	15		15	5		œ	80		∞	00	
all and a star	48-20k J		35–18k -			45-18k 3	43–18k 3		45-18k 3	45–18k 3	
Timed?	œ		/4-LF 8-HF	œ		œ	00		9	*	
ue tu	Black wetal		brown fabric	walnut brown fabric		hlark cluth	black cloth		gray cloth	gray cloth	
n'i uni one that in the state	Black Tulex		walnut	walnut	80	black µuly	walnut		black vinyl	black vinyl	
to i suamid	21 12 25	880	25.5 32.25 19.75	24 29 19.5	Acoustics	17 14 12.25	19 15.75 12.5		17.25 12.00 11.125	17.25 12.00 11.5	
	Carvin 850M&E	Cetec Gauss	7351	7258	Eastern	MS-30	MS-50	E-V	Sentry 100A	Sentry 100EL	

10

Carvin

The Professional's Choice

Join professionals like Alabama, Jefferson Starship, Roy Clark, Heart, Missing Persons, Pat Benatar, and Rush who de-pend on Carvin to get the scund and reliability they need!

With CARVIN you're buying the finest quality at the lowest prices! This is all made possible because of our factory direct marketing. Try it on the job for 10 days and if not convinced that it's better than gear selling for twice the price, we'll refund your money. Buy Direct and expect "Fast Action" mail order service. Use your Mastercard or Visa for convenience. Send \$1 for your CARVIN 84 pg catalog today or include \$2 for First Class mail, \$5 Foreign.

Factory Direct prices on Carvin Products as shown

- č
- D E
- ctory Direct prices on Carvin Products as shown R540-E Concert 90° Radial Horn w Pro Electro-Voice Driver \$279 1330-E Horn-loaded Bass Bottom w EVM-15L Electro-Voice Spk \$299 980-E Pro Radial Horn/Bass System w all Electro-Voice Spks \$439 750-M Pro 12" Stage Monitor w high powered MagnaLab spks \$179 MX1644 Modular Hecording board w 166 k 4 sub groupings, L&R assign, 4 buss sends, 4 band EQ, four 9 band Graphics, Reverp \$1995 SX1202 Stereo 12 ch w Graphics \$999 (w 300W RMS \$1199) DCA800 800W (bridged) Stereo Amp \$549. DCA300 300W \$419 EQ2029 29 Band 1/3 Octave Equalizer w Hi & Lo Fass Filters \$299 XC1000 Stereo Electronic Crossover for Bi & Tri Amping \$299 DC200 Solid body guitar \$499. With Kahler tremole \$649 XV112E Tube X-Amp with EVM-12L \$659. X-60 w Celestion \$419 B215M MagnaLab L5" Bass Reflex \$259, B215E w EVM-15L's \$379 PB150 Bass Head w Compressor, Parametric, & Crossover \$399 X100B British 100W X-Amp head \$529. X60B X-Amp head \$479
- G
- Ĥ
- ĸ
- M
- NO

Write: CARVIN, DeptMR-59, 1155 Industrial Ave., Escondido, CA 92025



same	*Biamp able.Constant directivity,time co herent,96dB SPL,1W/IM.	Time coherent.Downward-sloped front panel may be used 30° or 60° from vertical. 96 dB SPL,IW/IM. Constant directivity.		Coaxial, phase cuherent, double spider, high-power woofer with planar, regulated phase tweeter,console or wall mount.	same as model RM 765 above.	Coarial, time culmerent Jesign, Juuble spider,high power.Midrange with planar, regulated phase tweeter.				Also available in textured gray finish.		
in. Type He reference, s weight, perce, s	499.00	499.00		219.00	299.00	399.00		243.00	189.00	432.00	570.00	
the Burger	70	60		14.1	18.7	4.84		26	35	45	52	
t dimen. in	1500*	1500		6000	7000	800, 6000		2500	2500	6000, 15k	1000,	
	дотс	dome		horn	horn	horn		1	t		1	
Himen.	1,5	1.5		1	1	1		1.4	-	1 • 4	1	
9 Resp., 41-dB men., in. 9 Resp., 41-dB minen, in. 8365 Driver dimen., in. 8365 Briver dimen., in.						cone					1	
de dime	conc	cone		conc	conc	conc 6		cone	σμό	conc 5	cone 5	
14				<u>ö</u>	°			0 				
and the set	8k 12	8k 12	<u> </u>	0lt 6	Olc 8	01 10		5k 8	8k 6 . 5	5k 12	8k 12	
e vinien and Resp., 1-dB	40-18k 3	40-18k 3		70-20k 3	58-20k 3	50-20lt 3		45-15k 3	70-18k 3	45 15k 3	45-18k 3	
ut an	Q	Q	_	œ	00	00		ο υ	<u>ос</u> U	ື ບ	<u>م</u>	-
Cri 11 Grint	gray cloth	<mark>gray</mark> cloth		black	black	black		blue fabric	hlue fabric	blauk fabric	blue fabric	
t ture of the state	black vinyl	black vinyl		blaok matte	black matte	black matte		oíled walnut	oiled walnut	uilud walnut	oiled walnut	
a aprisano suorisuantid	23.75 27.00 13.00	19.5 25.63 18.75D		15 8.63 8.63	17 10.38 10.63	23.63 13.00 12.5		19.00 11.5 12.17	14.75 9.37 7.18	23.5 14.25 11.75	23.25 14.5 12.87	
tapon	Sentry 500	Sentry 505	Fostex	RM 765	RM 780	RM 865	JBL	4301	4401	2167	4411	



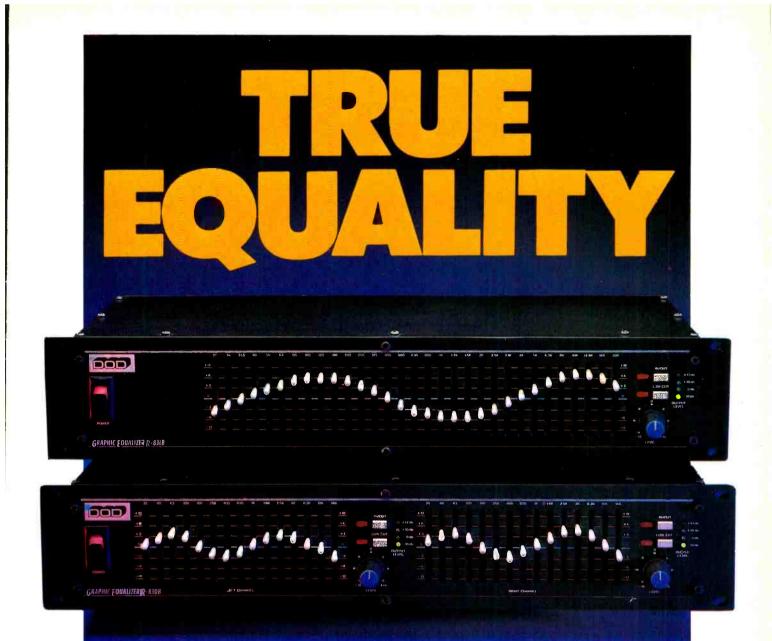
MIDI, computers, digital sampling, synchronization, synthesizers, new stringed instruments! Although it was closed to the public, you can now go behind the scenes at the largest music industry trade show in the U.S., presented by the National Association of Music Merchants, with the **Summer '84 NAMM-On-Video**. Hosted by *Modern Recording & Music* columnist Craig Anderton, this one-hour VHS videc includes demos of the latest gear, interviews, commentary, and background on changes in the industry and what they will mean to musicians. Send \$49.95 (plus \$2.50 shipping/handling).

Name		
Address		
City	State	Zip
I'm buying it 🗆		
've enclosed a check for \$	n.	
My V sa/Master Charge NUmber is		
The expiration date is		
My Signature (required for credit card	orders)	
Send to VIDEO, Modern Recording & 1120 Old Country Road, Plainview, N		

Special offer: Order the **Summer '84 NAMM—On-Video** (including demos of the Oberheim Xpander, Gittler guitar, Buchla 400, Akai Micro Studio, Simmons drums, SMPTE and MIDI sync boxes, and more!) and the **Winter '84 (January) NAMM-On-Video** (featuring the Emulator II, Kurzweill 250, Chapman "Stick", Yamaha DX7, and Tom Coster with the Moog Liberation) for a package price of \$79.95 (plus \$2.50 shipping/handling).

Produced by David Karr for Notch Productions.

souther				When used with an X-2 SMART processor, is time coherent and has fail-safe driver protection. Very low distortion.	A high-sensitivity,low-distortion monitor with true constant directivity horn. Accurate near-field stereo imaging.		High efficiency, wide directional pattern and low distortion,localized sound image, tweeter attenuator.	Price per pair,other features as 265 ME above except has dual attenuators.	As 280 ME above.	
dimen. in. dimen. in. Priver type Hr. orosover grea. Hr. Grosover grea. Price.	1260.00	1716.00		725.00	412.00		299.00	3 89 ° 00	819.00	
t type	175	250		85	52		11.5	15.4	35.7	
dimen.	1000	1000		1200	1600		3000	1500 _* 14k	500, 5000	
er dimen. in. dimen. in. erose	C	1		horn	horn		dome	domes	dome	
dimen.',	JU.	1		2			1.2	1.2, 0.79	1.2	
A Resp. * 1-dB minen. i.n. A Resp. * 1-dB briver Type dimen. i.n.									4.7 cone	
+1-dB	cone	cone		cone	cone		cone	cone	cone 4	
test.	15	15		15	12		6.3	6.3	1	
eduence	35-16k 3	30-16k 3		40-17k -	50-20k		60-20k -	60-20k -	50-20k -	
bed a this	<u>∞</u>	<u>∞</u>		00	00	_	8	80	k 8	
Ct. THI	blue fabric	blue fabric		black steel	black steel		black fabric	black fabric	black fabric	
atting alting alting	oiled walnut	oiled walnut		black carpet	black carpet		ğray	gray	gray	
. ut and suotenanta	35.75 21.87 15.75	35.75 38.00 17.18	leinz	30.00 20.00 16.00	24.00 16.00 15.00		14.00 8.00 9.6	15.7 9.3 9.3	13.00 23.00 11.6	
1-9 ROPE	4430	4435	Renkus-Heinz	B 2	MS1216	TOA	265-ME	280 ME	312 ME	



In the past, low price has often been equated with low quality. No longer!

DOD's R-830B and R-831B EQ's feature computer aided design, low noise, high slew rate, low distortion, and extremely accurate controls. Add to this DOD's low prices, and the result is two of the most popular EQ's on the market today.

- Modular PC board construction
- Center detented, linear potentiometers
- All metal chasis
- Four-level LED output indicators
- Low cut filter

- Bypass switch
- 12 dB boost or cut
- Signal to noise greater than 95 dB
- IM distortion less than 0.01%
- One year warranty

If you haven't yet discovered the true equality, you owe yourself a visit to your nearest DOD dealer for a demonstration.

DOD

5639 South Riley Lane Salt Lake City, Utah 84107 Telephone (801) 268-8400

Circle 23 on Reader Service Card

www.americanradiohistory.com

Hodel	Dimensions	HWD in. Outeide	Finish Grill	e Finier	Frequenc	y Reap	*/* ^{d8}						Weight	10°° 5
U REI 811B	20.75 26.5 19.00	flat black	-	8	80-17.5 3							_	107	1556.00
813B	36.00 31.00 23.00	flat black	-	8	40-17.5	-	-	-	-	-	-	-	195	2096.00
815B	32.00 43.5 21.00	flat black	-	8	40-17.5	Ī	Ĩ	-	-		-	-	235	2196.00

Monitor Speaker Manufacturers

Carvin Mfg. Corp. 1155 Industrial Avenue Escondido, CA 92025

Cetec Gauss 9130 Glenoaks Blvd. Sun Valley, CA 91352

Eastern Acoustic Works Inc. P.O. Box 437 Jenkentown, PA 19046

E-V, Electro-Voice, Inc. 600 Cecil Street Buchanan, MI 49107

Fostex Corp. of America 15431 Blackburn Avenue Norwalk, CA 90650 JBL Incorporated 8500 Balboa Blvd Northridge, CA 91329

Renkus-Heinz, Inc. 17851-AB Sky Park Circle Irvine, CA 92714

TOA Electronics, Inc. 480 Carlton Court South San Francisco, CA 94080

UREI-See JBL

Write directly to these manufacturers for further information on products in the charts.

Updated Recording Studio Handbook

A must for every working professional... student... audio enthusiast

Features latest state-of-the art technology of creative sound recording.

21 Fact-Filled Chapters

I. The Basics 1. The Decibel 2. Sound

II. Transducers: Microphones and Loudspeakers

- 3 Microphone Design 4 Microphone Technique
- 5. Loudspeakers
- III, Signal Processing Devices 6 Echo and Reverberation 7 Equalizers
- Compressors, Limiters and Expanders
 Flanging and Phasing
- IV. Magnetic Recording
- 10. Tape and Tape Recorder Fundamentals
- 11. Magnetic Recording Tape
- 12. The Tape Recorder

Principles

- V. Noise and Noise Reduction 13. Tape Recorder Alignment
- Tape Recorder Alignment
 Noise and Noise Reduction

- 15. Studio Noise Reduction Systems
- VI. Recording Consoles 16. The Modern Recording Studio Console
- VII. Recording Techniques
- 17. The Recording Session 18. The Mixdown Session
- Three all-new Chapters
 - The In-Line Recording Studio Console (The I/O Module. The Basic In-line Recording Console Signal flow details.)
- In-line Recording Console, Signal flow details.) 20. An Introduction to Digital Audio (Digital Design Basics Digital Recording and Playback Error Details and Playback Error
- 21. Time Code Implementation (The SMPTE Time Code Time Code Structure. Time Code
 - Code Structure. Time-Code Hardware.)

The Recording Studio Handbook is an indispensable guide with something in it for everybody. It covers the basics beautifully. It provides indepth insight into common situations and problems encountered by the professional engineer. It offers clear, practical explanations on a proliferation of new devices. And now it has been expanded with three all-new chapters ... chapters on the in-line recording studio console, digitial audio and time code implementation.

Sixth printing of industry's "first" complete handbook

The Recording Studio Handbook has been so widely read that we've had to go into a sixth printing to keep up with demand (over 30.000 copies now in print) Because it contains a wealth of data on every major facet of recording technology, it is invaluable for anyone interested in the current state of the recording art. (It has been selected as a textbook by several universities for their audio training program.)

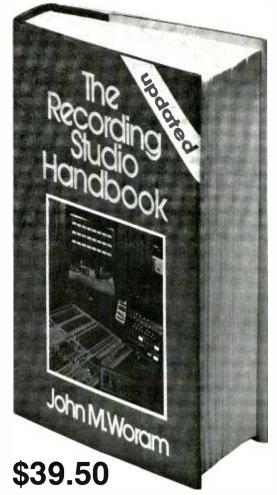
Highly Acclaimed

Naturally, we love our book. But don't take our word for it. Here's what others have to say:

"John Woram has filled a gaping hole in the audio literature. This is a very fine book . . . I recommend it highly." *High Fidelity* "A very useful guide for anyone seriously concerned with the magnetic recording of sound." *Journal of the Audio Engineering Society*

15-Day Money-Back Guarantee

When you order *The Recording Studio Handbook* there's absolutely no risk involved. Check it out for 15 days. If you decide it doesn't measure up to your expectations, simply send it back and we'll gladly refund your money.



Easy to Order

You can enclose a check with your order or charge it to Master Charge or BankAmericard/Visa. Use the coupon below to order your copies of the new updated *Recording Studio Handbook* (\$39.50).

Exp. date .__

Please charge my
Master Charge
BankAmericard/Visa

Account #

Signature

(changes not valid unless signed)

Checks must be in U.S. funds drawn on a U.S. bank.



BOOKSTORE

The Record Producers. John Tobler and Stuart Grundy. Record Producers are the back-stage boys of the music business. They have shaped our musical tastes and have influenced what we hear and how we hear it. The Record Producers is their story. From Phil Spector to George Martin, The Record Producers presents in-depth profiles on thirteen of the most talented and creative of the techno-masters. \$10.95.

The Guitar Greats. John Tobler and Stuart Grundy. The importance of the guitar to rock'n'roll cannot be underestimated. In The Guitar Greats, authors Tobler and Grundy explore the lives, careers, technical innovations and influences of fourteen living electric guitar virtuosos from the Sun session days to the present. Based on comprehensive interviews with the musicians themselves, The Guitar Greats profiles the lives of some of rock's greatest heroes, including Jimmy Page, Carlos Santana and Jeff Beck. Also included are seminal influences B.B. King, Scotty Moore, and James Burton. \$10.95.

Modern Recording & Music Ves! Please sendcopies of THE RECORD	1120 Old Country Rd.
PRODUCERS. \$10.95. On 15-day approval.	Plainview, NY 11803 (516) 433-6530
Yes! Please sendcopies of THE GUITAR GREATS. \$10.95. On 15-day approval.	
My account number is: 🗆 Visa 🗆 Mastercharge 🔲 🗌	
Name	Exp Date//
Address	
City State	_ Zip
	(Foreign subscribers add \$3 for each year. Foreign subscrip- ons payable ONLY in U.S. funds ternational draft or money order.)

C reative choice is what TASCAM's broad line of professional mixing consoles is all about. Whether you're polishing your musical skills or polishing your fourth gold album, opening up your audio to video, or opening up your own studio, TASCAM's comprehensive mixer selection lets you focus on your specific music needs.

Starting with our M-30, we've packed more artistic choice into a modestly-priced package than any console in the industry. This versatile 8x4 is ideal for everything from basic recording to video production and comprehensive small studio applications.

Increased flexibility highlights the M-30's big brother, our M-35. This durable 8x4 combines wideranging function capabilities with operating ease. The M-35 features 4 separate sub groups, solo, independent monitoring, built-in effects loop, and much more.

For more elaborate production demands, our rugged new M-520 console gives exceptional precision and complete control of your 8 and 16 track recording, overdubbing and mix down. The M-520's creative options include multiple inputs per channel, 8 independent subgroups, stereo solo-in-place, PFL, balanced and unbalanced inputs and outputs, multiple auxiliary mixes, and long-throw faders.

And if you're recording needs are met by 8 tracks, our M-512 console gives you the sophisticated functions, easy operation, and technical quality of the M-520, with fewer input channels.

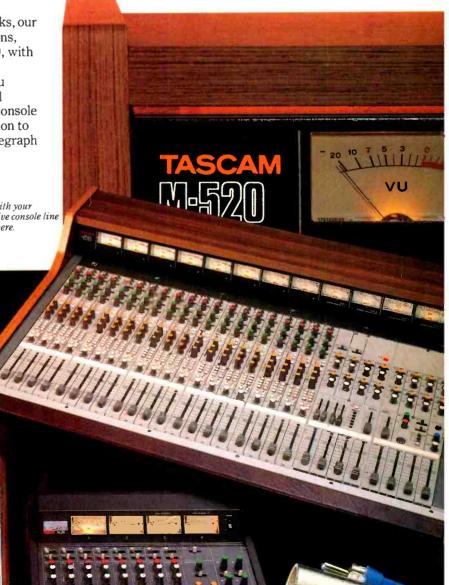
See your TASCAM dealer today. He'll tell you about these and a wide range of other professional TASCAM mixers, and get you hands-on with the console that was built for you. Or write for more information to TASCAM, TEAC Professional Division, 7733 Telegraph Road, Montebello, CA 90640, (213) 726-0303.

Copyright 1984-TEAC Corporation of America

Wherever you want to go with your music, TASCAM's extensive console line has the mixer to take you there.

Circle 33 on Reade

Tascam Recording Consoles. Mix With The Professionals.



len feldman

Carver PM-1.5 Power Amplifier



www.americanradiohistory.com

General Information

Robert Carver first came to the attention of the audio industry when he was one of the principals at Phase Linear Corporation. It was he who designed one of the first power amps that delivered a "watt for less than a dollar"—as he put it.

More recently, in his own corporation, Bob Carver astounded the industry once again with the introduction of his first "Magnetic Field Amplifier" for consumer use. This amp, configured as a tiny cube measuring no more than 6 inches on a side, delivered in excess of 200 watts per channel and weighed less than nine pounds! Don't confuse the term "magnetic field' with the use of that term in other areas of electrical and electronic technology. Carver has a penchant for creating names for his special circuits which don't always reflect exactly what the circuits actually do. In this case, the "magnetic field" principle mainly concerns a unique power supply approach that results in an extremely efficient amplifier circuit that draws only as much power as is required by the instantaneous audio signal being amplified.

Having succeeded with the tiny cube-shaped amplifier in the consumer audio arena. Carver next introduced a much more powerful version-the M-1.5 amplifier-which was soon followed by a second generation model known as the M-1.5t. That amplifier, capable of unbelievably high power levels at low distortion, prompted many professional equipment users to use it in professional applications. Carver had never intended the amp to be used as a pro amp. He realized full well that a pro amp has very special requirements, both in terms of interfacing and in terms of ultimate reliability and extended periods of use at or near full power levels. And so, he turned his attention to designing a pro version of his higherpowered amplifier. The PM-1.5 which we tested in our lab is the result of that effort.

Among the many features which distinguish the Carver PM-1.5 from its consumer cousin is a variable speed cooling fan that can just quietly spin at idling speeds when the amp is delivering little or no power, or can blast away at ultra high speed while pushing through enough air to keep output transistors at reasonable temperatures even while the amp is delivering its full 450 watts per channel of rated power into 8-ohm loads.

The PM-1.5 has three special protection circuits. There is a sophisticated "fault" interruptor to protect against dead shorts across the outputs. There is an adjustable, long-term speaker protection circuit that constantly monitors the power going to the speaker voice coils. It adjusts the duration of full power output that the PM-1.5 will maintain before exceeding the thermal capacity of voice coils to absorb power. A clipping eliminator detects any clipping which last longer than 20 milliseconds.

In this circuit, a high gain comparator circuit links the PM-1.5's input and output and responds to any difference between the two waveforms by attenuating the drive signals. Signals of up to 7 dB of overdrive are reduced so that output distortion remains under one percent. The circuit is only active when the amplifier actually goes into clipping.

There are no less than six additional protection features in this amplifier. There is an over-voltage protection circuit in case line voltages are excessively high. There is protection against excessive highfrequency signals at the outputs. There is protection against excessive, out-of-phase low-frequency oscillations at the output. There is protection against DC offsets in excess of 2.0 volts as well as from internal, low-level supply faults which might cause an imbalance in the amplifier's low-level power supplies. Finally, there is protection against amplifier overheating whenever temperatures of 90 degrees C are reached.

FEBRUARY 1985

54

Control Layout

To the right of the conventional power ON/OFF switch on the amp's 3/16-inch thick front panel is a remote turn-on sequencer that allows automatic turnon of several PM-1.5s in sequence or from a distant. remote location. By cascading connections between a rack full of these amplifiers, each unit will be turned on a quarter of a second after the previous one to prevent massive surges of power from being drawn at once. This sequential turn-on procedure can be initiated from a mixing console using a DC voltage of as little as six volts. Further to the right, on the front panel, is a rocker switch which turns on the clipping eliminator circuit. A pair of calibrated detented level controls come next. Further to the right, protection LEDs tell you if one of the three protection circuits has been activated. Near the right end of the panel, two banks of vertically arranged LEDs serve as power output indicators. These LEDs, which illuminate in red, have a one millisecond attack time. The bottom two LEDs in these arrays illuminate green to indicate a ready state after the amp has been turned on and voltages have stabilized. The top two LEDs light when clipping occurs.

The rear panel of the Carver PM-1.5 is not only intelligently laid out, but nomenclature screened on its surface makes it almost impossible to make a mistake in hooking up or using the amplifier. At the left are a pair of balanced female XLR inputs, with symbols screened below them to tell you which pins are which (so much for the problem of non-standardization with XLR connectors). A pair of ¹/₄-inch phone jack inputs are also provided and, since these are of the ring-tipsleeve type, they too may be used for balanced inputs if desired. A switch just below the XLR connectors allows you to operate the amplifier in mono, bridged mode for an output of 1200 watts into an 8 ohm load. Five-way color coded binding posts are provided for speaker connections, with speaker polarities clearly indicated, along with a clear notation of the common ground terminals. Should it become necessary to isolate input grounds from the chassis, a jumper located above the speaker terminals simply is removed. A pair of terminals further to the right, labeled Receive and Send are used for the multiple amplifier power-up sequencer described earlier. To the right of these is a special foam filter pad behind the proportional speed fan which can be removed for easy cleaning. A heavy-duty 10-foot power cord, with molded grounded 3-prong plug is at the extreme lower left of the rear panel, just below the line fuse receptacle which contains a 12-ampere slow-blow fuse.

Laboratory Measurements

The amplifier delivered a clean 480 watts per channel into 8-ohm loads with both channels driven for its rated harmonic distortion level of 0.5%. Even at the frequency extreme of 20 Hz, power output for rated THD was 470 watts as against 450 claimed by Carver. Furthermore, at rated power output, distortion decreased to an insignificant 0.015% at mid-frequencies and 0.007% at 20 Hz. When connected to 4ohm loads, the PM-1.5 delivered 750 watts per channel for rated THD of 0.05%—far more than the 600 watts claimed by Carver. Clearly, when it comes to specs for a professional amplifier, Carver has taken a very conservative approach. This is in contrast to his tendency to push published specs to their limits in the case of his consumer products.

Other measured test results are summarized in our VITAL STATISTICS chart at the conclusion of this report. All equaled or exceeded published specifications—usually by a wide margin. My one concern with specifications was the input sensitivity. The amplifier requires about 3.0 volts to be driven in its full rated output. That's a fairly high voltage and not every mixing board or preamplifier will provide that much drive at low distortion. So, if you plan to use this amp, singly or in multiples for professional sound reinforcement applications, make certain that the mixer/preamp you drive it with has adequate output at least +12 dBm and preferably a bit more.

Comments

The first thing we noticed when we began to work with the Carver PM-1.5 was the ease with which the amplifier delivered almost limitless power to speaker loads which we had previously considered to be difficult to drive to loud levels. This is the sort of amplifier that just refuses to quit. Some of that apparent limitless power is, of course, attributable to that "clipping eliminator" circuit which Carver has devised, but we suspect that much of it is due to the socalled magnetic field principle which actually works a lot better when handling music signals than it does when testing with continuous test signals on the lab bench. For one thing, the circuit is so arranged that one channel can literally "borrow" power from the alternate channel. In reproducing stereo program

'The sound is dry, rhythm is lifeless, and a thin vocal is swimming in muddy

bass'.

e muse controls de controls de lestourof event otmance Dverthe vent entrols de have been teen to

ide - xtra help and c. 1. They were c. sitv.

soun tax

rause only a handity. ople had itudios. But

New Accessil 1911 the essential addin facilities 1 anvine with a Fostexia Ke tra Teal in trauti simply 1 of a Sound in a TV

Wide range of control

Connectronics

from cocals of the life in transmission for the second se

store official transition with events with utils. Easy to connect and use

nime Alternior titleter in the schede the Lixer of point in a strength of the Lixer of the the point in a strength of the anti-oren under the strength of the anti-orcent liser of the schede anti-orcent of the strength of the liser of the Alternior Strength of the liser perior Alternior Strength of the liser tartener dap + ur = and and rever d an reg = 1 ned trideser was tride tter The whole story

The provide structure of probination where the training of the structure of the tall random distance in a pro-structure of the maximum effective structure of a structure of the structure of the structure of the Wiener structure of the the structure of the str

Accessit

Circle 34 on Reader Service Card

CONNECTRONICS CORPORATION 652 Glenbrook Road Stamford CT 06906 U.S.A Telephone (203) 324 2889 Telex 643678

MODERN RECORDING & MUSIC

material, the power demands made by each of the two channels may be widely different for any given instant of music—and that is when this "borrowing" principle really comes into its own.

The operation of the forced-air cooling fan is unique, too. It was only after we started working with the amp that we noticed yet another switch on the rear panel, just below the fuseholder. This switch, labeled "Normal/Quiet" is normally set to the "Normal" position, the owner's manual tells us. In that setting, the fan speed (and therefore cooling capacity) is tied to the demands made on the amplifier's power supply, as well as to chassis temperature. With no signal present, the fan operates quietly at a very slow speed. As drive to the amplifier is increased, fan speed increases. If operating conditions or other external environmental factors cause the chassis temperature to exceed 50°C, the fan runs at a very high speed that is still proportional to the amplifier's power output demands, until the temperature is reduced (by the cooling effect of the fan) to a value below 50°C.

If the "Normal/Quiet" switch is set to the "Quiet" setting, the fan speed remains low regardless of power

output and chassis temperature. This setting would only be used in environments having extremely low ambient noise conditions. Even if you use this setting (and little or no fan cooling), the amplifier will shut down completely if temperatures ever exceed 90 degrees C., so basic protection is still maintained.

Once again, Carver has managed to deliver a tremendous amount of power in a small, lightweight package at a very reasonable cost. Frankly, if we weren't familiar with Bob Carver's earlier accomplishments in the area of cost, size and weight reduction in audio amplifier technology we would never have even bothered to put this unit up on the bench. It just doesn't look as though it is capable of delivering the kind of awesome power that, in fact, it produces. For the professional audio engineer or technician who has to move a lot of gear around much of the time and who expects total reliability and circuit protection, come what may, the Carver PM-1.5 represents, in our view, a real winning product. We will probably see it used increasingly by professionals in every area of sound reinforcement. The suggested retail price of this amplifier is \$995.00.

CARVER CORPORATION PM-1.5: Vital Statistics

CARVER CORPORATION PM-1.5 POWER AMPLIFER: Vital Statistics

SPECIFICATION	MFR'S CLAIM	MR&M MEASURED
Continuous power for rated THD, W. (8 ohms, 1 kHz)	450	480
Continuous power for rated THD, W. (4 ohms, 1 kHz)	600	750
FTC rated power (20 Hz to 20 kHz), W.	450	470
THD at rated output, 1 kHz (8 ohms) %	0.5%	0.01%
THD at rated output, 1 kHz (4 ohms) %	0.5%	0.023%
THD at rated output, 20 Hz (8 ohms) %	0.5%	0.007%
THD at rated output, 20 kHz (8 ohms) %	0.5%	0.09%
IM distortion, rated output, SMPTE %	0.5%	0.025%
IM distortion, rated output, CCIF %	N/A	0.022%
IM distortion, rated output, IMF %	N/A	Less than 0.03%
Frequency response @ 1 W, Hz-kHz, for -1 dB	N/A	9 Hz to 35 kHz
S/N Re; 1 W, "A" weighted, 1 Hz, db	N/A	89 dB
S/N Re; rated output, "A" weighted dB	115 dB	115.5 dB
Dynamic headroom, IHF, dB	N/A	1.4 dB
Damping factor, @ 50 Hz	200	210
OHF input sensitivity, volts	N/A	0.14 V
Input sensitivity re rated output, Volts	N/A	3.0 V
Slew rate (volts/microsecond)	25 V/usec	
Power consumption (Watts) idling	N/A	N/A
Power consumption, max. (Watts)	1500	N/A
Dimensions (w" x h" x d")	19 x 3 ¹ / ₂ x 10 ¹³ /16	1470
Net weight (pounds)	21 lbs.	Confirmed
	21103.	Confirmed

Circle 36 on Reader Service Card

Bryston 4B Pro Power Amplifier



General Information: Historically, the audio industry has been divided into two distinct camps: the high fidelity or "audiophile" market, and the professional market. Users of high-fidelity equipment have, in the past, regarded "pro" amplifiers as unsuitable for the accurate reproduction of music in a home environment; lacking necessary bandwidth, low enough distortion levels, and transient response. On the other hand, professional sound contractors, musicians and others involved in the sound reinforcement business, while recognizing the superior fidelity of some of the better "hi-fi" amplifiers, have always regarded those products as wholly inadequate from the point of view of reliability, ruggedness of construction and the specific needs of sound reinforcement.

Bryston, Ltd., located in Roxdale, Ontario, Canada is guick to admit that there is little difference between their highly regarded Model 4B amplifier (definitely an "audiophile's" amp) and their 4B Pro, the Model we recently put through its paces on our lab bench and in our listening rooms. The chief difference, in fact, is that the Model we tested sports 1/4-inch phone jack inputs while the version intended for home use employs RCA-type phono jacks for the inputs. At the same time, Bryston explains that there really need be no fundamental difference between a good "pro" amp and a good home hi-fi amp. It's been some years since we first tested the home hi-fi version of the Bryston 4B, and, interestingly, the new Pro version (*as well as later versions of the hi-fi version) have undergone considerable circuit improvement in the interim. Not that the "old" 4B wasn't a great amplifier. It was! It's simply that, as Bryston puts it. "Bryston does not 'freeze' the design of its products, but instead incorporates improvements into production as better technology becomes available.

A case in point is Bryston's output stage topology. Figure 1 shows a simplified diagram of Bryston's former output stage configuration—the one used in the earlier 4B we tested some time ago. Since it is a common-emitter connection, it can be arranged to provide finite voltage gain through the addition of a local feedback loop (resistors R_1 through R_2) something that classic complementary Darlington output stages configured in the common collector or emitter follower mode cannot do. The configuration of Fig. 1 also allows the input circuitry to operate over a more

met the "

www.americanradiohistory.com

linear region and simplifies voltage regulation. In common with earlier classical circuits, however, this circuit does not do much for the distortions that sometimes arise from imperfect symmetry in the crossover region, due to slightly different low-level characteristics between the NPN and PNP transistors which handle each half-cycle of any audio waveform.

L

t

57

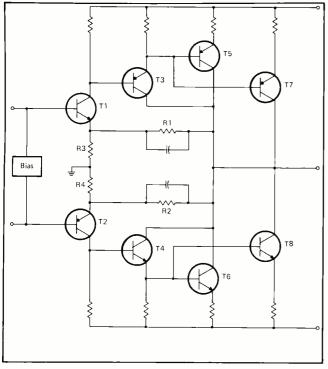
The simplified diagram of Fig. 2 is the new output section used by Bryston in their latest amplifiersincluding the 4B Pro that we tested. It uses both polarities of output transistors on each half of the output waveform. This eliminates any small symmetry in the zero-crossing region, since both polarities of output transistors are active at all times. Equally important, it allows the base current from the driver transistors (T_3 and T_4) to do double duty. Referring back to Fig. 1 we see that the two output transistors on either half of the output stage are connected in parallel, including the base terminals. They split the input and output current flow. In Fig. 2, on the other hand, although the output transistors are in parallel as far as the power-delivery current is concerned, their base terminals are connected in series. This means that the base current supplied to T₇ comes from T_5 and is not merely split between the two bases as it is in the parallel connection. All else being equal, driver transistors T₃ and T₄ will supply exactly half the base current in the arrangement of Fig. 2. compared with the arrangement in Fig. 1.

Compared with earlier designs, the new output stage results in a distortion level that is reduced, across the entire audio band, by a factor of two, or about 6 dB. Even more important, the distortion components that are attenuated by this amount are primarily the more obtrusive higher-order harmonic components.

Control Layout: The rack-mountable front panel of the Bryston 4B Pro is equipped with the usual carrying handles, a power ON/OFF switch, a pair of recessed, screwdriver-adjustable input level controls (one for each channel) and an LED clipping indicator for each channel. A green LED pilot light shows when power has been applied to the amplifier.

The rear panel of this amplifier is a bit busier than the front. Here are located a pair of AC-line fuseholders, a stereo-mono switch (used for mono bridged

MODERN RECORDING & MUSIC

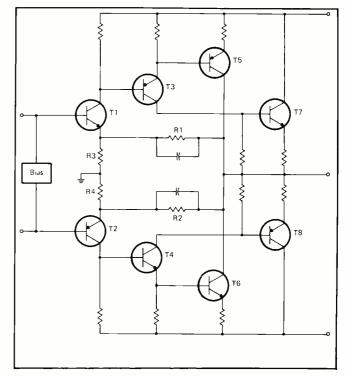




operation). the right and left input phone jacks. color coded right and left 5-way output binding posts and a "Ground" switch. For normal hi-fi operation, this ground switch connects signal ground and chassis ground. For multiple-amplifier professional rack installations, chassis ground and signal ground may be separated by choosing the alternate position of the switch. As with most amps having "bridging mode" capability for increased power output in mono operation, when the mono mode is chosen. speaker connection is made from the "Hot" (red) output terminal of one channel to the "hot" terminal of the opposite channel. The "Left" input jack is the one that's used when operating the amplifier in the bridged or mono mode.

Laboratory Measurements: This amplifier, when measured on the test bench, exceeded just about every one of its published performance specifications. With 8-ohm loads, it delivered 230 watts per channel, with both channels driven, at any frequency from 20 Hz to 20,000 Hz with no more than 0.01% harmonic distortion. At mid-frequencies, as much as 250 watts per channel was produced for the same low level of distortion. Maximum output, at clipping, measured 275 watts per channel. At rated output (200 watts per channel into 8 ohms) harmonic distortion was an insignificantly low 0.0025% (and most of that was probably caused by the residual distortion in our signal generator).

Connected to 4-ohm loads, the amplifier delivered 375 watts for a THD of 0.01%, but easily delivered in excess of 400 watts at mid-frequencies before there was any visible evidence of overload or clipping. We operated the amplifier in the mono (bridged) mode briefly on the bench and confirmed Bryston's claim for its power rating under those conditions. The amplifier delivered exactly 800 watts when configured that way or, as Bryston puts it in their brochure. "more than





www.americanradiohistory.com

1 horsepower). Other measured test results are summarized in the VITAL STATISTICS chart at the end of this report. We measured more performance parameters than Bryston chose to list, and that accounts for the inordinately high number of "N/A" (Not Available) notations in the "Mfr's Claim" column of the VITAL STATISTICS chart. Also not shown in the chart is the fact that at extremely low output levels, distortion was also extremely low. At 1 watt output, THD measured only 0.0065%. That's lower than we've ever been able to measure in the lab, and it confirms Bryston's claims concerning the almost complete absence of crossover distortion or, as it is sometimes called "switching distortion." It is this kind of distortion that makes amplifiers sound especially "grainy" and harsh at lower listening levels. This amplifier actually exhibits a distortion spectrum (what there is of it) that is very similar to that found in "Class A" biased amplifiers, without sacrificing efficiency.

Comments: The conservative design of the 4B is such that no cooling fan is required under any operating conditions. Bryston's confidence in the reliability of this product has been demonstrated by the fact that the 4B Pro comes with a 3 year warranty on parts, labor and, yes. even return shipping expense. The conservative use of nearly 1,000 square inches of heat sinking does result in a fairly heavy package (23 kg adds up to just over 50 pounds, for those of you who still refuse to "go metric"), but that's a small price to pay for the thermal stability and utter reliability that this amplifier offers.

As for sound quality, here is one amplifier which sounds every bit as good as it measures. About the only thing it lacks, that might have been useful in some applications, is balanced input facilities. Since most preamps and mixing consoles either have both balanced and unbalanced outputs or can easily be recon-FEBRUARY 1985

58

1

figured for unbalanced outputs, we don't regard that as a serious drawback. As for the price of the Bryston 4B Pro there's no getting away from the fact that you can buy a dual-channel amp that offers 200 watts-plus per channel for a lot less than the asking price for this

Bryston model, but you might want to think about the peace of mind that owning this rugged, reliable amplifier produced by our neighbors to the North will provide. That's worth quite a bit too, don't you think?

BRYSTON 4B PRO POWER AMPLIFIER: Vital Statistics

SPECIFICATION	MFR. CLAIM	MR&M MEASURED
Continuous power for rated THD, (W) 8 ohms, 1 kHz	250	250
Continuous power for rated THD, (W) 4 ohms, 1 kHz	N/A	375
FTC rated power, (W) 20 Hz to 20 kHz	200	230
THD at rated output, 1 kHz, 8 ohms (%)	0.01	0.0025
THD at rated output, 1 kHz, 4 ohms (%)	N/A	0.3
THD at rated output, 20 Hz, 8 ohms (%)	0.01	0.0029
THD ar rated output, 20 kHz, 8 ohms (%)	0.01	0.0075
IM distortion, rated output, SMPTE (%)	N/A	0.0045
IM distortion, rated output, CCIF (%)	N/A	0.003
IM distortion, rated output, IHF (%)	N/A	Less than 0.03
Frequency respone @ 1W, Hz-kHz (for -1 dB)	N/A	5-65
S/N ratio, 1W, "A" weighted, IHF (dB)	N/A	90
S/N ratio, re: Rated output, "A" weighted (dB)	100	111
Dynamic headroom, IHF (dB)	N/A	1.0
Damping factor, @ 50 Hz	500	502
IHF input sensitivity (Volts)	N/A	0.085
Input sensitivity re: rated output (Volts)	1.25	1.20
Slew rate (volts/microsecond)	60	Confirmed
Power consumption, idling (watts)	N/A	190
Power consumption, maximum (watts)	N/A	1060
Dimensions (w″ x h″ x d″)	19 x 5 ¹ / ₄ x 13 ¹ / ₂	Confirmed
Net weight (pounds)	23 kg	Confirmed
Suggested retail price: \$1600.00		

Circle 37 on Reader Service Card

HAVE A **RECORDING STUDIO PROBLEM**? Call DataLine (213) 651-4944

The Society of Professional Audio Recording Studios, a non-profit organization, offers SPARS members, and non-members referred by a SPARS member, a national telephone 'hot-line.'

Questions regarding any area of

recording studio operations including business practices, audio engineering, and technical maintenance will be answered by SPARSapproved sources at no charge.

Want a problem solved Call SPARS-

(213) 651-4944



Christopher Stone Record Plant Inc Los Angeles Joseph D. Tarsia Sigma Sound Studios Philodelphia David Teig New York John Woram

Woram Audio Associates New York

INSTITUTE OF ENGINEERIN

OFFERING DIPLOMA PROGRAMS IN:

RECORDING ENGINEERING (AUDIO & VIDEO)

Also Forming:

4 WEEK INTENSIVE WORKSHOPS IN **RECORDING ENGINEERING**

Two In-House State-Of-The-Art 24-Track Recording Studios

Faculty Members Are Leading **Recording Industry Professionals**

Internship/Placement Assistance

Professional Working Environment

Write or Call for Brochure INSTITUTE OF AUDIO/VIDEO ENGINEERING Dept. K, 1831 Hyperion Ave. Hollywood, California, U.S.A. 90027 (213) 666-3003

59

Murray R. Allen Universal Recording Corporation: Chicago Jerry Barnes Inited Western Studios. Los Angeles Charles Benanty Soundworks Digital Audia/Video Studios New York

JVC Cutting Center Los Angeles Bruce Botnick Digital Magnetics Los Angeles Nick Colleran Richmond

Larry Boden

Editel Chicago John Rosen Fanta Professional Services, Nashville

SPARS Board of Directors and Consultants

Mack Emerman

Bob Liftin

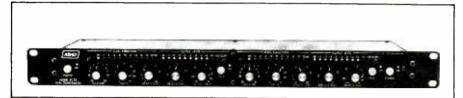
Regent Sound New York

Criteria Recarding Miami

Lenard Pearlman

what's new in sound and music

ASHLY AUDIO DUAL COMPRESSOR/LIMITER

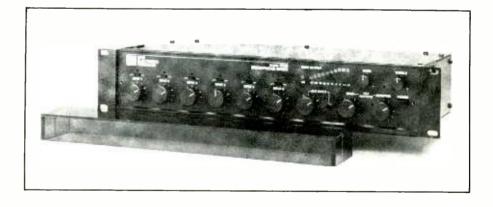


Ashly Audio's new model SC-52 Dual Compressor/Limiter provides two channels of clean, accurate gain reduction in one compact package, combining peak detector circuitry with improved metering. It may be used either as two independent peak compressor/limiters, or may be strapped for stereo tracking. The amount of gain reduction, attack and release times, and output gain matching are all precise and independent adjustments, making the SC-52 ideal for such diverse applications as loudspeaker protection,

JBL MICROPHONE MIXER

JBL's new 5330 VCA Controlled Microphone Mixer incorporates remote control of output levels in the mixing of live mic feeds. JBL's 5330 provides two outputs which can be used for main and monitor or alternately to feed two separate zones. The VCA controls allow sound contractors to gang the gain controls of multiple units as they desire. Further, priority muting of all channels by channel one is available by remote DC control. All inputs are voltage controlled through the use of an optional card or, conversely, can be manually controlled. Whether the 5330 is installed in a church, nightclub or other meeting area, sound contractors have the option of using gain trim controls to limit the control range to levels suited for unskilled users. In addition. the screwdriver adjustable trim controls are available at all mic/line inputs and at both outputs, allowing the presetting of maximum control gains. Tone controls also have a range trim control to eliminate their action in nonapplicable situations. Powerbroadcast limiting or compression, recording, tape, to disc transfer, special effects, vocal level control, and musical instrument sustain. Features include: extremely low noise and distortion, unusually wide control range on all parameters, gain reduction meters, output level meters, clipping indicators, in/out bypass switching, front panel stereo tie switch, detector patch points and balanced or unbalanced use of inputs/outputs, \$659.00.

Circle 38 on Reader Service Card



line isolation and the breaking of ground loops is ensured by fullyfloating, transformer-coupled outputs. These transformers are driven by output stages capable of +24 dBm. To avoid inadvertently used switches, JBL locates the switches on the rear panel. There are also switches to activate the 48 volt phantom supply and defeat the limiter. Limiting the output is internally preset to gradually increase above -3 dBm on the output bar graph display and designed to be fully operational at the display maximum. External hum that interferes with other equipment is eliminated because the modular power source is separate from the main chassis. An optional security cover is also available. \$875.00.

Circle 39 on Reader Service Card FEBRUARY 1985

CETEC VEGA HAND-HELD WIRELESS MICROPHONE



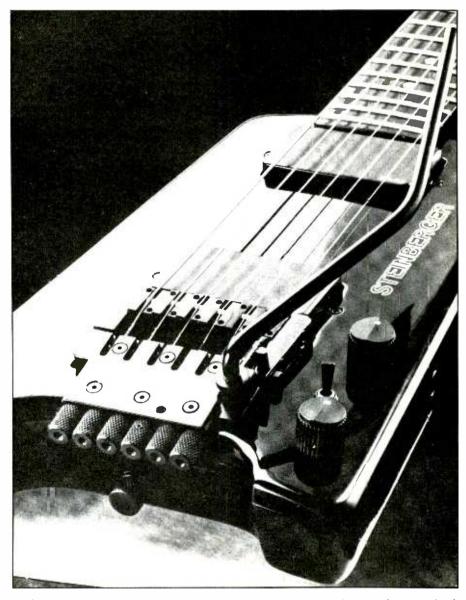
STEINBERGER TRANSPOSING TREMOLO BAR

Steinberger's new Transposing Tremolo, called the TransTrem. will be formally revealed at the NAMM Winter Market, Anaheim, CA in early February 1985. The new tremolo (or vibrato as it is also known) is considered by some players and marketing experts who have previewed it to be the first major advance in its genre since the original work of Paul Bigsby in 1946. The TransTrem is the first pitch-bending mechanism made for an electrical guitar which permits an individually controllable change rate so that all strings can be set to maintain pitch relationships throughout tremolo travel. Tremolo movement can be quickly and easily locked into a simple rotation of the tremolo arm. In addition to the normal E key position. additional lower locking positions of B. C. and D tuning and higher tunings of F# and G can be instantly achieved by simple arm rotation. An adjustable counter-spring allows the user/musician to set the tremolo to any desired center pitch which may be between D and F#. Steinberger's Double Ball String System, which is featured on all Steinberger guitars and basses, is inherently stable and requires no extra set-screw locks at the headpiece end, making it extremely suitable for the tremolo configuration. Additionally, the new tremolo utilizes a smooth, precision ball-bearing action. The complex geometry involved in producing the Transposing Tremolo is both difficult MODERN RECORDING & MUSIC

Cetec Vega's new model T-36 handheld professional wireless microphone uses the Electro-Voice BK-1 BLACK KNIGHT condenser element and attractive black windscreen. It's also a companion to the Cetec Vega R-31/DII receiver. The T-36 is housed in a contoured black case with a patented internal dipole antenna. The system operates on any crystalcontrolled frequency between 150 and 216 MHz, at a range of up to 1000 feet (or more, with the Cetec Vega ultralow-noise diversity receiver). This hand-held wireless mic operates with CV's PRO series receivers. The

transmitter features Cetec Vega's DYNEX II audio processor, which provides 100 dB or more of usable dynamic range and clean, transparent sound. System frequency response is 100 Hz to 13 kHz, ±1.5 dB (±1.0 dB, 120 Hz to 12 kHz). The unit includes a multiple-pole 80 Hz highpass filter to minimize handling and wind noise. Typical end-to-end distortion is 0.3% when used with Cetec Vega's receivers.

Circle 40 on Reader Service Card



and expensive to manufacture. Steinberger Sound notes while the price is not yet fixed, it will be significantly higher than that of a conventional tremolo. This, then, is the first mechanism to change the sound of the tremolo, as chords can be maintained through pitch changes.

Circle 41 on Reader Service Card

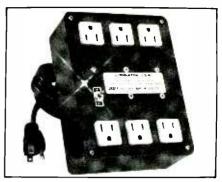
MORLEY DIGITAL REVERB PEDAL



Morley's new Rock-n-Verb digital reverb pedal has been developed for those who can't afford a rack mounted digital reverb. Battery or AC powered this compact, non-microphone, controls under-foot, unit can generate natural sounding room acoustics on vocals or from any musical instrument. Other features included are reverb loudness control, active reverb tone control, super overdrive distortion, reverb sustain control and doubling. This piece of equipment is manufactured in the USA and carries a list price of \$219.95.

Circle 42 on Reader Service Card

ELECTRONIC SPECIALISTS POWER FAIL INTERRUPT

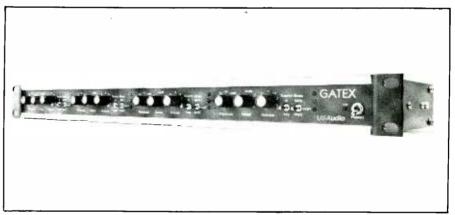


Electronic Specialists' new Power Fail Interrupt Audio/Video Equipment Protection is now available as an option on their complete line of Power Conditioning and Protection apparatus. This unit interrupts protected Audio/Video equipment AC power for even a momentary power line disruption. Power is restored via a front panel manual RESET switch. The Power Fail Interrupt option is available from stock and can be ordered as an adjunct to Surge Suppressors. Isolators or Kleen-Line Conditioners. The cost of this option is \$85.00 installed.

Circle 43 on Reader Service Card

USAUDIO GATEX

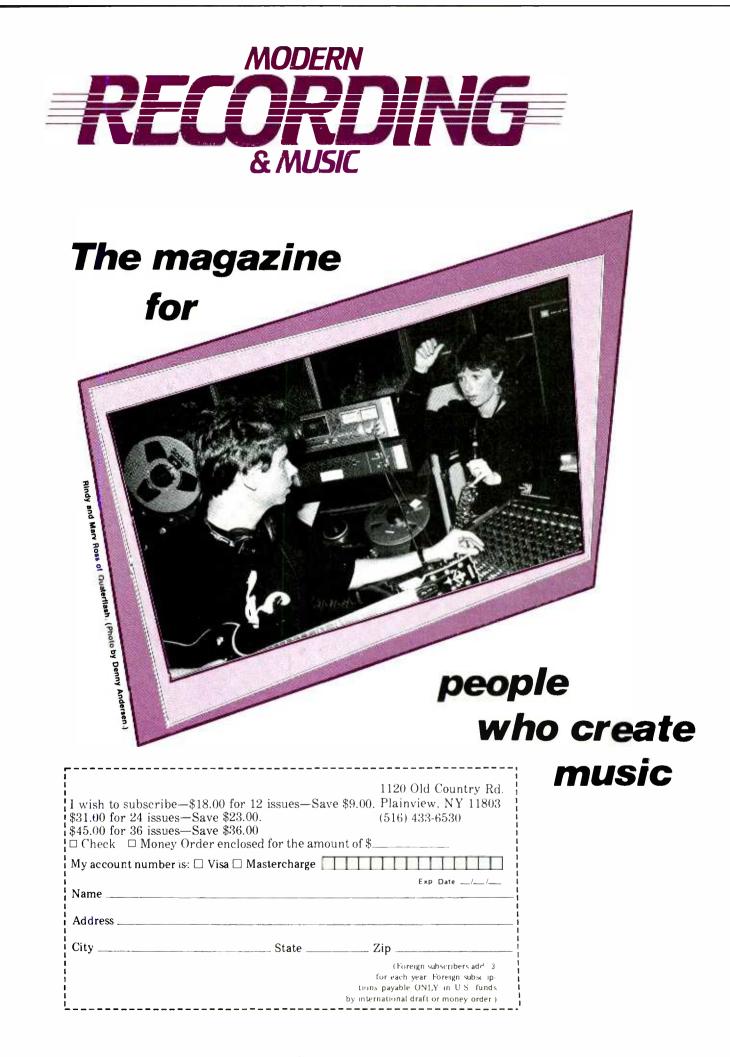
USAudio has studied the need for noise gates and expanders, and found an innovative way to offer technology that is both effective and readily understood. The result is a new four channel noise gate/expander unit that affords the user intuitive application with the support of solid circuit design. At the heart of Gatex is the new Valley People TA-104 Voltage Controlled Amplifier. By virtue of its distortion free operation and wide dynamic range, the TA-104 allows Gatex to process audio signals without coloration. Feed-forward control circuitry allows accurate gain control without instability caused by control lag commonly found in less expensive processors. And DC control of all functions eliminates Noisy Pot problems because no audio signals pass through the front panel controls. All user controlled parameters are optimized for ease in set-up and operation. The unit's variable threshold encompasses the range of levels from -40 dB to +20 dB, providing the versatility to process all types of program material. A complementary range control enables the user to adjust the amount of maximum attenuation from subtle



noise reduction to an 80 dB Cut-off thus allowing dynamic control not achievable with less sophisticated devices. Even the release control is special. Program Controlled Sustain automatically lengthens the release time as dictated by the program content. So, desirably short release times may be employed without creation of unwanted distortion. The Gatex mode select switch permits the unit to perform hard noise gating, 1:2 expansion, or unobtrusive noise reduction. In all modes, Turn-On noise is eliminated by means of Program Controlled Attack, which alters attack time according to the

demands of the material being processed. Keying is made possible via the Gatex source switch. In this mode, an external signal may trigger the gating or expanding action of the device. An easy-to-read three LED display allows the operator to monitor the operation of Gatex at a glance. The green LED indicates a Full-On or unity gain condition. Yellow provides visual indication of ongoing expansion, while red shows maximum attenuation as determined by the range control. \$399.00.

Circle 44 on Reader Service Card FEBRUARY 1985







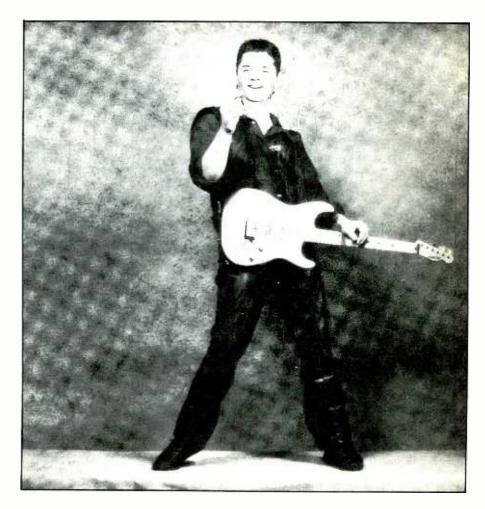
STEVE MILLER BAND: *Italian X Rays.* [Produced by Steve Miller, Byron Allred, Kenny Lee Lewis and Gary Mallaber, engineered by David Cole, Sun Valley Audio, Sun Valley, Idaho, and Capitol Recording Studios, Hollywood, California.] Capitol SJ-12339.

Performance: Predictable Miller pop Recording: Digital forever

Steve Miller is a bit like Paul McCartney: two rock artists practicing pure pop for the now generation. Neither is unpredictable, but either for a lack of material or for atmospheric interludes. Miller has keyboardist Byron Allard perform five instrumental solo segues that are quiet nice but also extremely extraneous. Otherwise, *Italian X Rays* is like most of Miller's recent albums except that it is digitally recorded, and he claims he never will record with analog in the future.

Miller's easy going pop generally deals with love songs except for the dronal "The Hollywood Dream," where an aspiring female goes to New York and becomes a musical star and after travelling in Europe, migrates to California and becomes a film queen, yet the whole time she is lonely because she has no man. "She paid the price for fame," sings Miller in the album's stand out track. Most of the other tunes are instrumentally compact with Kenny Lee Lewis taking the only extended guitar solo on the optimistic "Golden Opportunity."

Miller's trademark style of mixing backing vocals in such a way that, at times, they seem almost like calls and responses adds to the music's seductiveness. He also has a tendency to wind down songs with just a hummable, aliteration of sounds for increased impact. And on the title



track—the album has no Italian flavors, by the way Lewis's bass has a dense sound that effectively cushions the crisp techno percussion.

When Miller debuted with Children of the Future in 1968, he employed sound effects in one of the more creative rock experiments of the psychedelic era. By the mid-70's, he found pop with The Joker and Fly Like an Eagle, and he retuned it with Abracadbra in the early 80's. And now with Italian X Rays. Miller seems a bit bored with pop and music in general and has come up with an easy listening record that is both enticing yet unchallenging—some parts could be disguised Muzak. —bob grossweiner

TOM VERLAINE: *Cover.* [Produced by Tom Verlaine; engineered by Michael Ewaski, Blue Rock Studio, New York; also engineered by: Dave Jerden, Eldorado Studio, Los Angeles; Mario Salvati, Sorcorer Studio, New York; Ray Niznik, engineer, Bearsville Studio, New York; Steve Brown,

www.americanradiohistory.co

Townhouse Studio, London.] Warner Bros. 25144-1.

Performance: Crafty, understated Recording: Bright, crisp

Old renegade guitar heroes don't die (well...wrong, I guess many of them do), they just get whimsical and seasoned in their old age. Not that Verlaine is a geezer or anything. It's just that this charming LP shows marked maturity in overall concept from Verlaine's edgier days with Television, that seminal punk band which once backed up Patti Smith and eventually rose up from the Max's-CBGB's circuit in Manhattan, circa 1973-74.

A decade has passed and Verlaine has gotten wiser. He has learned to respect production values and exercises good taste and keen instincts throughout this lighthearted package of nine tunes. Compared to 1977's Marquee Moon, this album is positively engaging.

Shades of the old axe-strangler do crop up now and then (most notably on the nerve-jangling, metal-scraping interludes on "Travelling"), but for the most part Verlaine's riffs are restrained or pared down to serve the tunes and fit into the production scheme.

"Dissolve/Reveal," with its intricate Afro-Beat drum program and multilayered guitar tracks, clearly emphasizes production values over chops. Verlaine's playing here is rich sounding but purely functional, and it works.

The guitar work on "Lindi Lul" and "Let Go The Mansion" is also modest. making an almost subliminal impression. These two lightweight tunes, full of catchy hooks and bright kicks from crisp guitars and bell-like synths, seem to be a nod to a new generation of "new music" fans.

"Emily," with its ostinato bass line. buzz saw guitar solo and pinched vocals, harkens back to Television days. The formula here is the same--two aggressive guitars (Jimmy Ripp is the second axeman) interacting over a propulsive bass throb (provided here by Material's Bill Laswell) and a steady bashing on the drum kit (courtesy here of Allen Schwartzberg).

By contrast, "Foolish Heart" is silly and sentimental. This romantic ballad, with Verlaine's soulful guitar lines wafting subtly behind a singsong melody, sounds like an outtake from John & Yoko's giddy Double Fantasy.

Verlaine is clearly at home in the studio. On three of the tunes-"Foolish Heart," "Let Go The Mansion" and "Swim"-he plays all the instruments himself. Though he hasn't exactly put his axe on the shelf. Verlaine shows here that he has other interests than just bending strings and strangling Strats.

-bill milkowski

PAT METHENY: First Choice. [Produced by Pat Metheny; engineered by Jan Erik Kongshaug; assisted by Rob Eaton; recorded at the Power Station, New York.] ECM 25008-1.

Performance: Riveting Recording: Crystalline

The kid from Lee's Summit. Missouri, has come a long way from his debut as a leader, 1976's Bright Size Life. Since then Metheny has been showered with every kind of accolade that a guitarist can receive. and with good reason. The kid's got chops to spare.

Within the past few years, notably since his 1981 duet album with Lyle Mays, As Falls Wichita, So Falls Wichita Falls, Metheny has been putting less emphasis on chops and stressing the overall sound of his compositions. After becoming so readily associated with his signature Lexicon digital delay mellow sound he became intent on finding a new voice. and he found it in 1982 with the Roland guitar synthesizer. featuring on Off Ramp.

This fine album has Metheny playing a variety of axes, including a Synclavier digital guitar synthesizer and a sitar guitar. Only on one cut, "Tell It All," does he revert to the old Metheny sound with his trusty Gibson 175.

His current group-Paul Wertico on drums, Steve Rodby on electric and acoustic bass, Pedro Aznar on percussion and vocals and longtime collaborator Lyle Mays on keyboards -has coalesced as a band. The five had been together as a unit for one year at the time of this recording (February 1984).

Aznar is a particularly valuable addition to the Pat Metheny Group, His mastery of several percussion instruments clearly fills the void left by Nana Vasconcelos' departure. The fact that he sings beautifully and plays guitar as well is just icing on the cake. Aznar's sonorous falsetto voice is most effective as an instrument, doubling the melody lines on "Yolanda, You Learn," "First Circle" and "Praise." On the moving ballad. "Mas Alla (Beyond)," Aznar contributes lyrics that he sings softly in his native Argentinan tongue.

"If I Could" is another sublime ballad. reminiscent of "Farmer's Trust" from the Truvels album, a Grammy Award winner in 1983. Here Pat plays gentle acoustic guitar while Rodby supplies a warm, sparse bass line. Mays cushions with Oberheim swells while Wertico adds some sensitive brushwork to the airy textures. Individually, it's an exercise in understatement; collectively, a masterpiece. The whole is greater than the parts, which seems to be Metheny's thinking in general these davs.

Pat does his flourishes in on "Tell It All." where he takes off against a Brazilian backbeat propelled by Wertico's deft timekeeping and Mays' agogo (cowbell) accents. On "End Of The Game" Pat disguises his signature guitar sound with a guitar synthesizer, then fills in orchestral accompaniment behind Mays' gentle piano solo, highlighting the diversity of this exciting new instrument.

"Forward March" is a tongue-incheek tribute to Metheny's high school marching band days (he played French horn out on the football field every Friday night back in Lee's Summit). Mays plays trumpet and Aznar (who probably never saw a high school marching band) plays cliche glockenspiel licks for perfect mock effect while Metheny simulates the rest of the orchestra on Synclavier. Slightly dissonant, slightly surreal, they sound like the marching band at Ornette Coleman High.

The album's centerpiece is the thrilling title cut, a nine-minute showcase that builds to a grandiose, kinetic peak. It begins subtly enough with Metheny playing steel string acoustic over a flurry of flamenco handclaps. Aznar doubles a melody line on nylon string acoustic and voice, singing that sweet falsetto over Mays' cascading chords. A full range of dynamics is explored as this opus evolves. At its most introspective, everyone drops out while Mays tinkles gently, accompanied by Aznar's soft percussive fills. As the piece heads into its ecstatic finish, Metheny begins strumming his acoustic furiously, a la his 1979 Now Chautauqua LP. There is never any grandstanding here. Everything serves a purpose on this record, working to enhance the overall sound. Hats off to Pat Metheny the producer.

—bill milkowski

KIP HANRAHAN: *Conjure:* Music For The Texts Of Ishmael Reed. [Produced by Kip Hanrahan; engineered by David Rodriguez; recorded at Latin/Eurosound Studios, New York, N.Y.] American Clave AMCL-1006.

Performance: A convocation of spirits representing jazz, rock, blues, Latin Recording: Immediate and visceral

Novelists since the birth of this nation have labored to grasp and then preserve on paper the substance of the American Dream. Kip Hanrahan, a Jewish-Irish Bronx native in his late 20s who now lives on the Lower East Side of New York, is equally intent on capturing and preserving on tape the American Clave, or American Rhythm.

The American Clave, though it is the name of Hanrahan's record company, is as elusive as the American Dream. The American Clave, like the American Dream, so concrete yet so evanescent, can be locked into place about as easily as one can bottle a rainbow, catch a falling star or examine the intricacies of a snowflake on a pane of glass. It is no wonder, then, that Hanrahan the composer and producer knew he's found a kindred spirit when he read the words of novelist and poet Ishmael Reed: "Nature can't do without rhythm, but rhythm can get along without nature."

Books about records are nothing new, but *Conjure* is a record about a book—or, if you prefer, a record made from a book. Under the direction of media mixmaster Hanrahan, six composers fashioned songs around the words of Reed's book *Conjure*. Much as Hanrahan, a filmmaker by his own description, has "directed" his own "solo" albums—five-star masterpieces of collaboration called *Coup De Tete* and *Desire Develops An* *Edge*—where he acts as an "editor." Individually co-composers David Murray (tenor sax), Allen Toussaint (piano), Taj Mahal (guitar), Steve Swallow (electric bass), Lester Bowie (trumpet) and Carla Bley not only wrote the music but performed it, all under the supervision of "producer" Hanrahan.

The music (two of the 10 offerings are unaccompanied narrations by Reed) is as diversified as the musicians who wrote it and the soloists who interpret it. Conjure is a convocation of spirits representing jazz. blues, rock and Latin music; and, as always with Hanrahan, representation requires participation. The musician on a Hanrahan date will be nudged out of his comfort zone and forced to reorient himself to the producer's pan-global time zone. A guitarist from Haiti, for instance, might work alongside a rock guitarist from New York. Cliche's, musical and conversational, prompt head shaking and upturned palms between two such players.

This is a fine strategy for a band which doesn't possess one outstanding vocalist and is mainly concerned with weaving musical tapestries filled with highly contrasting textures. R.E.M. chooses to record its vocalist so low in the final mix that his words sound like mumbles from the underworld; Love Tractor mixes its vocals so that voices from heaven seem to make faint guest appearances.

An ideal example of how the psychedelic sounds of the '60s, get altered for the '80s, can be heard on "Greedy Dog." This wacky and very fractured blues counterpoints the tape of a barking dog with that of a goofy-sounding vocalist. The staggered beat is generated by a programmed drum machine. Somehow the cut evokes the feel of Southern garage bands, yet twangy, unpolished, and driving surface dates this cut as unmistakably 1984. Drummer Andrew Carter (who plays on all of the album's remaining cuts) and bassist Armisted Wellford bring a youthful energy to their time-keeping.

The recording quality is simply sumptuous. This is one band with the knowledge of how to produce themselves in a manner which cleverly disguises their weaknesses (vocal) and heightens their strengths (guitars and synthesizers). Listen to how Armistead Weller's clarinet solo at the close of "Neon Nights" seems to gently soar above the guitars. This is a band to keep track of, a group which has captured the essence of psychedelic music without becoming trapped within its cliches. The five selections on this album should keep your consciousness well altered, sans recreational chemistry, 'till the cows come home and long after.

norman weinstein

JEAN-LUC PONTY: Open Mind. [Produced by Jean-Luc Ponty; engineered by Peter R. Kelsey; recorded at La Tour D'Ivoire, The Village Recorder, Mad Hatter, The Enterprise Studio, all in Los Angeles, Ca. and Atlantic Recording Studio in New York.] Atlantic 7 80-185-1.

Performance: Orchestrated to a tee Recording: No snaps, no crackles, no pops

More and more, Jean-Luc Ponty is divorcing himself from using the violin as a traditional melodic instrument. He's becoming more of a maverick in the studio, and on this. his eleventh album, even throws in two surprises by the names of George Benson and Chic Corea. This is the first effort in recent years that Ponty has allowed such established "stars' on his platters...perhaps demonstrating that the French jazz/rock violinist has grown more secure as a musician and producer even though he has produced all of his records. Always experimenting with ways to filter his violin through computers, Ponty comes up with some earpleasing sounds on this album which was mixed on a two track digital machine and recorded in five studios coast to coast.

Ponty teaches a valuable lesson on this album when it comes to producing and letting his guest artists have a free reign in having them sound like themselves instead of having them sound like they were produced by Jean-Luc Ponty. For example, whenever Phil Collins produces a record you can hear his trademark booming drums. But what kind of imprint does Jean-Luc Ponty leave on his productions? Nothing as bold as Collins, but he does let his guests "do their thing" and the results are heavenly. George Benson sounds like George Benson on "Modern Times Blues" with a breezy and succulent solo that dominates the



song. Benson punctuates his solo with powerful exclamation points of virtuosity, displaying his educated, scat-like style. The same holds true with the manual dexterity of Corea on keyboards. He remains spontaneous as Ponty creates "background" filler for him on "Open Mind" and "Watching Birds." Ponty's filler is patterned sequences, teetering between the right and left channels designed to give the listener somewhat of a dizzy, euphoric feeling.

At one time, Ponty employed many studio musicians and bounced them from album to album. The only studio musician he used on this album is the drummer featured obscurely on two cuts. For the most part, percussion is done via the synthesizer, rhythm computer as Ponty becomes more dependent on machine instead of man. He still is a marvelous orchestrator, building layer upon layer of sound for a stupendous wall that can knock you over. In front of that wall, Ponty utilizes his many violins, from his Barcus-Berry to the Zeta, providing soothing and moving melodies. The two drummers that he does use, Casey Scheuerell and Rayford Griffin, are standouts from earlier efforts and play their parts exceptionally well.

Looking at this album from a composing point of view. Ponty's music is the same—spacey, jazzy and mystical. But by adding Benson and Corea. Ponty has expanded his wellknown style. If only he had let Benson sing.

-martin basch

RICHARD STRAUSS: Sonata in B minor for piano/Five piano pieces. [Produced by Samuel Carter, Andrew Kazadin & Glenn Gould, Sonata recorded September 3, 1982 at RCA studio A, New York City; Glenn Gould, pianist; engineered by Stan Tonkel, Bill Messina and Ray Moore: 5 piano pieces recorded in 1979, studio and place unlisted; engineered by Kevin Doyle and Kent Warden.] CBS 1 M 38659.

Performance: A Gould mine of spirit and perfection Recording: Fine digital but short of 30th Street, but then that's progress

This is Glenn Gould's last will and testament. He didn't plan it that way but that's how it happened. Had Gould known that within a month after the completion of his recording of Strauss' B minor piano sonata he would suffer a fatal stroke he might well have chosen something more valedictory for his final recorded utterance. Then again he might well not have. Glenn Gould was passionately devoted to this music and he brought to it the same care and insights which he brought to the *Goldberg Variations* of Bach and the final sonatas of Beethoven.

Glenn Gould once played his music on a television program and introduced it with the comment "this is Richard Strauss...18 years old ... full of Mendelssohn ... and full of beans!" Full of quite a few other influences too I'd venture to say. It is not possible to listen to the opening allegro of the Sonata without saying to one's self "Beethoven's Fifth." But then Richard Strauss was never above reaching backward for his inspiration and I've heard the Beethoven Fifth figure suggested in some of the piano music of Haydn so who is to say who began what and when and where.

This isn't dreadful music. The first time you hear this LP you may well enjoy it. However I find this to be surface music and as such the enjoyment has, for me at least. decreased with repeated listening. I will, however, allow that I find the earlier piano pieces more rewarding than the Sonata.

I find it interesting that Gould hears Mendelssohn as an influence in this music. I have always thought of Mendelssohn as the missing link between the classicism of Mozart and Beethoven and the romanticism of Brahms and Schumann. As a romantic this bridge undoubtedly appealed to Strauss both ideologically and musically. As a romantic this music and the bridge which runs through it certainly must have had its appeal for Glenn Gould. Although statistically Gould's major triumphs have come in the music of Bach and Beethoven his approach to these masters of the high baroque and the classical is basically the approach of a romantic. True to each composer, yet Gould brings his own personality to bear on whatever music he plays.

Glenn Gould is faced with little competition in the Sonata, none in the piano pieces—according to the latest issue of Schwann. Perhaps the idea of playing such esoteric music appealed to Glenn Gould. I think it more likely, however, that it would take a surebox-office seller like Glenn Gould to

convince any major record company to record music of such specialized interest and limited sales potential. It is all here...everything that has always appealed to those of us who count ourselves as among his fans. There is the element of the unexpected, even more so because this is virtually unknown music...the high standards of technical excellence... the illuminating insight which reveals so much in any music to the listener...the charisma...the rhythmic impetus...Glenn Gould's sing alongs ... his joys in music making ... all are a part of the Glenn Gould experience.

It is a matter of record that CBS abandoned their famed 30th Street Church studio in 1981 after Glenn Gould's remake of Bach's Goldberg Variations. The 1979 recording of the piano pieces does not sound like 30th Street to me (and mine are ears which heard 30th Street both in live sessions and on disks to a considerable extent before '81). It lacks the 30th Street resonance and natural echo. That and the unfamiliarity of the names of the recording engineers as well as the listing of Gould as coproducer lead me to wonder if this recording might not well have emanated from a Canadian source... either a studio or a C.B.C. broadcast or telecast. The sound of RCA's Studio A, used for the Sonata recording, is a nice lively bouncy sound without the spaciousness and natural echo of 30th Street. But the 30th Street Studio has been torn down to make room for another high rise.

Sic transit gloria mundi! Adieu 30th Street! Farewell Glenn Gould!

—joe klee

ANTONIN DVORAK: Symphony #9 in E Minor "From The New World." James Levine & the Chicago Symphony Orchestra. [Produced by Thomas Z. Shepard; recorded June 29, 1981 at the Medinah Temple, Chicago, Illinois; engineered by Paul Goodman.] RCA ATL 1 4248.

Performance: Idiomatic if a bit frenzied at times Recording: Digital but harsh

ANTONIN DOVARAK: Symphony #9 in E Minor "From The New World." Sir Georg Solti and the Chicago Symphony Orchestra. [Produced by Paul Myers; recorded January, 1983 at Orchestra Hall, Chicago, Illinois; engineered by James Lock.] London 410116-1.

Performance: Relaxed, sensitive yet somewhat reserved Recording: Digital, warm & comfortable

Within 2 years...two New Worlds from the Chicago Symphony...and that's only the beginning. The Schwann catalog also lists recordings of the New World Symphony by the C.S.O. directed by Fritz Reiner (RCA) and Carlo Maria Giulini (DGG) in addition to the long cut-out Mercury LP with the Chicago Symphony under the direction of Rafael Kubelik.

These two recordings also serve to contrast the two identities of the Chicago Symphony Orchestra. During their regular season at Orchestra Hall on Michigan Avenue in Chicago their conductor in chief is Sir Georg Solti. In the summertime the Chicago Symphony Orchestra is the house orchestra for the Ravinia Music Festival in Chicago's Northern suburbs. Their musical director at the festival is James Levine.

It's the same orchestra and yet it's a lesson in how differently the same orchestra responds to two different conductors. Anyone familiar with James Levine's work won't be at all surprised to find this an energetic. maybe even bombastic, account of the score especially when contrasted with my memories of Reiner's earlier mono recording. Yet there is much in Dvorak's New World Symphony that would justify such an interpretation. Despite the chaos which Levine is capable of whipping up when he feels it is called for there are moments of sheer beauty such as the famed largo "Goin' Home" of the second movement.

To say that Solti's performance of this music is lacking in energy would be a superficial and, in my opinion, erroneous judgement. I would however say that Solti is more relaxed in dynamics and tempi, more reserved and more cautious. This is not surprising when one realizes that Dvorak's music is new to Solti's repertoire and that this recording of the New World represents Solti's first attempt at this famous old warhorse. Solti's playing time exceeds Levine's in every movement and yet that only tells part of the story. There has always been a brassy edge to the sound RCA gets in Chicago.-London's sound is a more

overall orchestral sound. This could be due to a difference in recording techniques. This could be due to the overall sound that the recording producer and engineer and the conductor wanted to emerge as the final product. I prefer to think that the major difference is the difference between the orchestra in its natural habitat. Orchestra Hall and the Medinah Temple-a barn of a place that is better equipped to house the famous Shrine circus than it is to house the kind of music making that the Chicago Symphony Orchestra is capable of.

Either of these interpretations of Dvorak's music is satisfactory in its own terms and especially since the price of two LPs make it a both/and situation I would be hard put to choose between the two. As for the sound I think it's a plus on the London side. There seems to be less need to get up and down and adjust the volume to avoid being blasted out of your ear drums by the orchestral tutti and still get maximum presence out of Grover Schlitz' English horn solo in the second movement. Schlitz, by the way, is listed by name on RCA but left to anonymity on London. I have, however, been assured by Chicago Symphony historians that Grover Schlitz is still alive and well and playing English horn with the Chicago Symphony Orchestra.

-joe klee





NAMM presents "Bones West" on Saturday. February 2. at 9:00 a.m.

Play it again, NAMM.

It's that time, once again . . . the annual NAMM Winter Market is just around the corner. Make your plans now to attend the show that more and more music dealers say they can't *afford* to miss.

Make sense out of the new technology... discover ways to operate your business more profitably... and spend time in valuable meetings with your suppliers. There's no better, or easier, way to accomplish all this than by attending Winter Market.

Last January's Winter Market had 349 exhibiting companies and a total industry attendance of 20,675. The 1985 Market is expected to be even bigger, filling the recently expanded Anaheim Convention Center with a dazzling array of the very latest in new musical products.

Don't wait. Pre-register yourself and your employees for the February 1–3, 1985 Winter Market. Remember . . . pre-registration means *no waiting in line*. (The NAMM show is open only to owners and employees of retail, manufacturing and distributing companies in the music products industry.)

Pre-register with forms enclosed in Music Retailer News, NAMM's trade show newsletter.



Pre-register by December 21. NAMM members: free. Non-members: \$20/person or free with new membership.

NAMM Winter Market

Anaheim Convention Center Anaheim, California February 1–3, 1985

National Association of Music Merchants = 5140 Avenida Encinas = Carlsbad, CA 92008 = 619/438-8001

www.americanradiohistory.com

MAKING TRACKS

At NYC's Unique Recording: Producer Arthur Baker was in at NYC's Unique Recording remixing the Rolling Stones' next release to promote the soundtrack for their recent video. The single Too Much Blood and the 12" dub version were released on Rolling Stones records. Chris Lord Alge mixed and engineered with help from Tom Lord Alge. Producer Richard Burgess was also in recording tracks for Melba Moore's upcoming release on Capitol Records. Steve Pecorella and Frank Heller engineered with Roey Shamir assisting. Also, producer Keith Diamond was in mixing tracks for Melba Moore with Frank Heller engineering and Mike Nicoletti assisting...At California's Berkeley Studios: The new Taxxi album is being produced by Tom Dowd with Phil Kaffel at the board and Stephen Hart assisting. Greg Kihn has completed his first all digital album for EMI Records. Matthew Kaufman produced the LP with Richie Corsello engineering and Tom Size assisting. Larry Lynch and the Mob Band (Larry was the drummer in the Greg Kihn Band) have been working on their album for Beserkley Records. Matthew Kaufman and Richie Corsello are also working on this project. Frankie Beverly and Maze have finished mixing their album for Capitol Records with Leslie Ann Jones engineering for the project and Dave Luke assisting. Frankie Beverly produced the LP... Producer Jellybean Benitez has been working with engineer Michael Hutchinson at New York's Sigma Sound. The duo have been working on a dance remix of Lindsey Buckingham's "Slow Dancer"...Peaches & Herb were at L.A.'s Mad Hatter laying tracks and doing overdubs for their new album for Don Ralph productions. Greg Wright produced the project with Carl Lang and Duncan Aldrich. Nina Hagen was in mixing her newest CBS album at L.A.'s Larrabee Sound. Adam Kidron is producing with Steve Hodge at the board Fred Howard assisted ... Chic Corea was also in at Mad Hatter laying tracks for a new album for ECM. The project includes horns, flute, strings, cello and the music of Mozart. Corea is producing the project and Bernie Kirsh and Jeff Vaughan are at the board...

MISCELLANY

Ricky Skaggs is currently on a Northeast and mid-Atlantic tour playing dates in Washington D.C., Boston, M.A., New York, Montreal, Quebec, and Hartford, CT...Mastermind Recording Studios has recently completed a total renovation of their famous Studio A. A new state-of-the-art automated MCI JH636 Console is backed up by a Carver PM1.5 power amplifier driving a pair of new Westlake monitors...The newly revitalized jazz label Blue Note, a division of Manhattan Records, recently signed their first artist, guitarist **Stanley Jordan.** Jordan is being produced by **AI DiMeola**, and his debut album will be among the first released on the new Blue Note label...



EQUIPMENT FOR SALE: Ampex ATR-700 reel-to-reel, Audioarts stereo and mono parametrics, Great British spring reverb, Korg stage echo, Nady wireless lavalier with Sony ECM element. All in excellent condition. For prices and particulars call or write **Filmspace**, **Inc.**, **615 Clay Lane**, **State College**, **Pa. 16801. 814-237-6462**.

Piano Technician's Guide for the Piano Owner. Protect your piano investment. This book explains how your piano works, and how to keep it working. \$3.00 Ppd. Bookman House, P.O. Box 271804, Houston, TX 77277.

FREE DISCOUNT CATALOG/AMP AC-CESSORIES PREMIUM TUBES, "HOT" REVERB PANS, CABLES, HARDWARE, GRILLE CLOTH AND MUCH MORE. DEGA SOUND, 5145-B West 115th St., Los Angeles, CA 90045.

LEARN SOUND EQUALIZATION, ear training tapes with answers. A-B comparisons where you equalize program-B to match program-A. Free equalization workshops; write for information. FOR SALE AT LOW PRICES: Ampex 440B-8 Recorder, Sound Workshop 1280-B Mixer, Kustom 20XRM Mixer, Russco Studio Pro Turntables, Telex 300 Stereo cassette Duplicators in-shell and continuous loop. Brazro 1215 N. Concord Rd., Chattanooga, TN 37421. (615) 892-5995 nights.

AMEK CONSOLES MATCHLESS-SCORPION-ANGELA

Also: Revox PR99's, Fostex Pro, AKG, ADA Efx., Symetrix, Klark-Teknik, Micmix, NEI, AB Systems. Used: Tangent Series 16, Scully 280B Servo, AKG 414's & more! ERS Inc. (412) 221-2737 or 221-7025.

LEARN RECORDING ENGINEERING by top pro instructors. Check with us before deciding. Send for free brochure. JTM Workshop of Recording Arts, Box 686, Knox, PA 16232. (814) 797-5883.

RUSSELL CARTER—ENTERTAINMENT ATTORNEY. Recording Contracts, Publishing, Songwriter and Management Agreements; Copyright Registration; Incorporations. Free initial consultation. 842 First National Bank Building, Decatur/ Atlanta, GA 30030. (404) 377-9900.

FREE your copy of yesterday's prices on the industry's leading Pro Audio and Stage Lighting Equipment and Accessories. Mixers, amps, equalizers, mics, lights, dimmers, lamps, gel and much more. Check our prices before you buy. **All-Pro Audio and Lighting, P.O. Box 3992, Centredale, RI 02911.** Big Savings from the Smallest State. **Classified Rates** \$1.00 per word. Minimum \$25.00. Copy must be received at Modern Recording & Music, 1120 Old Country Road, Plainview, NY 11803 by the 15th day of the 2nd month prior to cover date (for example, the April issue closes February 15th). Payment must accompany order. Phone numbers count as 1 word. Zip codes are free.

PRODUCTS

SERVICES

EQUIPMENT

DISPLAY ADVERTISING \$40.00 per column inch.

Advertiser's Index

AB Systems 9 Aphex 13 Audio Technica 3 Carver 5 Carvin 45 Cetec Gauss 4 Connectronics 55 Countryman 6 C-Tape Developments 10 DeltaLab 23 DOD 49 E.V. 21 Fostex Cover III Institute of Audio/Video 59 Lexicon 19 Oberheim Cover II PAIA 12 Peavey 43 Polyline 8 Polyphony 12 Pulsar 14 Rane 11 Recording Workshop 16 Shure 7 Symetrix 20 Synchronous Technologies 22 TEAC 53	
Carvin45Cetec Gauss4Connectronics55Countryman6C-Tape Developments10DeltaLab23DOD49E.V.21FostexCover IIIInstitute of Audio/Video59Lexicon19OberheimCover IIPAIA12Peavey43Polyphony12Pulsar14Rane11Recording Workshop16Shure7Symetrix20Synchronous Technologies22	Aphex 13
DOD.49E.V.21FostexCover IIIInstitute of Audio/Video59Lexicon19OberheimCover IIPAIA.12Peavey43Polyline8Polyphony12Pulsar14Rane11Recording Workshop16Shure17SoundcraftCover IVSoundcraftsman15Studer Revox7Symetrix20Synchronous Technologies22	Carvin45Cetec Gauss4Connectronics55Countryman6
FostexCover IIIInstitute of Audio/Video59Lexicon19OberheimCover IIPAIA12Peavey43Polyline8Polyphony12Pulsar14Rane11Recording Workshop16Shure17SoundcraftCover IVSoundcraftsman15Studer Revox7Symetrix20Synchronous Technologies22	
Institute of Audio/Video59Lexicon19OberheimCover IIPAIA12Peavey43Polyline8Polyphony12Pulsar14Rane11Recording Workshop16Shure17SoundcraftCover IVSoundcraftsman15Studer Revox7Symetrix20Synchronous Technologies22	E.V
Lexicon19OberheimCover IIPAIA12Peavey43Polyline8Polyphony12Pulsar14Rane11Recording Workshop16Shure17SoundcraftCover IVSoundcraftsman15Studer Revox7Symetrix20Synchronous Technologies22	FostexCover III
OberheimCover IIPAIA12Peavey43Polyline8Polyphony12Pulsar14Rane11Recording Workshop16Shure17SoundcraftCover IVSoundcraftsman15Studer Revox7Symetrix20Synchronous Technologies22	Institute of Audio/Video 59
PAIA12Peavey43Polyline8Polyphony12Pulsar14Rane11Recording Workshop16Shure17SoundcraftCover IVSoundcraft15Studer Revox7Symetrix20Synchronous Technologies22	Lexicon 19
Peavey43Polyline8Polyphony12Pulsar14Rane11Recording Workshop16Shure17SoundcraftCover IVSoundcraft15Studer Revox7Symetrix20Synchronous Technologies22	Oberheim Cover II
Recording Workshop16Shure17SoundcraftCover IVSoundcraftsman15Studer Revox7Symetrix20Synchronous Technologies22	Peavey 43 Polyline 8 Polyphony 12
SoundcraftCover IVSoundcraftsman15Studer Revox7Symetrix20Synchronous Technologies22	
TEAC 53	SoundcraftCover IVSoundcraftsman15Studer Revox7Symetrix20
	TEAC 53

SONGWRITERS RESOURCES and SERVICES is a non-profit organization dedicated to the education and protection of songwriters. For free information, write or call SRS, 6772 Hollywood Blvd., Hollywood, CA 90028; (213) 463-7178.

GUITARS/FREE DISCOUNT CATALOG Martin, Ovation, Guild, Dobro, Fostex Multitrack, mandolins, banjos, accessories. Mandolin Bros, 629-MR Forest, Staten Island, NY 10310. (212) 981-3226. Visit our showroom

SOUND EQUIPMENT SELLOUT

Mics, Signal Processing, Power Amps, Multi-Way Speaker Stacks. Call for list. (301) 926-4800.

DISCOUNTS STARTING AT 25% off on quality sound equipment. A/DA, EXR, Emilar, Astatic. Send for free catalog. RMS Recording & Electronics, Box 1075, Ames, I A 50010.

OTARI-MX5050 Mark III-8 recorder. New, never used. Still boxed, with manuals. \$4800 plus shipping or best offer. Call Mark. (408) 422-3500 days, or (408) 462-5545 evenings.



CHANGE OF				
ADDRESS	5	ach bel		لم
Planning to move? Please let us know six weeks in advance so you won't miss a single issue of		Attac Label Here		
MODERN RECORDING. Attach old label and print new	-	New Address Here 🛛 🕶		Please print
address in space provided. Also include your mailing label	Name			
whenever you write concerning your subscription to insure	Address			
prompt service on your inquiry. MODERN RECORDING	City _		State	
1120 Old Country Road Plainview, NY 11803	Date		Zip	



4-TRACK MASTERPIECES

While the Beatles were teaching Sgt. Pepper and the Band to play, twenty years ago, George Martin was getting everything down on a 4-track tape recorder. Even by today's standards it's a masterful feat of technology.

So is the X-15, in its own way. It's the ultimate evolution of 4-track recording, designed by the engineers who invented the format of a multitrack cassette recorder/mixer.

This is the one that's really portable, easy to use and costs less than \$500, retail. Plus, there's a companion mixer/compressor, microphones, headphones, self-powered speakers, the works.

It's all together, all affordable. So if you have a little masterpiece of your own in mind, see your Fostex Dealer today.



FOSTEX CORPORATION OF AMERICA, 15431 Blackburn Ave., Norwalk, CA 90650 (213) 921-1112

Circle 11 on Reader Service Card

"After all, Im a songwriter, not an engineer."

Songwriters and engineers are not only equipped with very different kinds of talent, they need different kinds of equipment to bring those talents out.

No one is more aware of this fact than Steve Kipner. He's one of the most successful songwriters in the country. You'll find his words and melodies behind many of the industry's top recording artists. Like Olivia Newton John's "Physical", "Heart Attack" and her newest hit "Twist of Fate." Other contributions include songs for Sheena Easton, Dolly Parton, America, and Laura Branigan.

And behind Steve Kipner you'll find Soundcraft's 400B console. Because to create the sound that both audiences and artists respond to, Steve prefers the console that responds to him.

Steve chose the 400B for reasons that are as solid as gold. "I spend long hours in my home studio, and I never know when the creative spirit is going to strike, even at 3 AM. I spend time at this console laying down fracks, not patching and repatching, or fooling around with a lot of confusing controls. The Series 400B does what I want it to do and lets me do it easily. The quality of the sound is equal to expensive commercial studio sessions, plus I've got the comfort and control of my home environment. After all, I'm a songwriter not an engineer."

It's easy to see why Steve chose the 400B. But of course, at Soundcraft we do more than build the kind of consoles that bring out the best in recording artists and songwriters. We also provide a full line of quality mixers to bring out the artist in the engineer.

Soundcraft The Songwriter's Choice

Soundcraft Electronics 1517 20th Street, Santa Monica, CA 90404 (213) 453-4591 Telex: 664-923

Soundcraft Electronics Canada, Inc. 1444 Hymus Blvd., Dorval, Quebec, H9P 1J6 (514) 685-1610 Telex: 05-822582

Soundcraft Electronics Limited 5-8 Grand Sutton Street, London, ECIVOBX, England Telephone: 01-251-3631 Telex: 21198