SERVING THE CREATIVE AUDIO AND MUSIC ELECTRONICS INDUSTRY

SOUND ARTS

MERCHANDISING JOURNAL

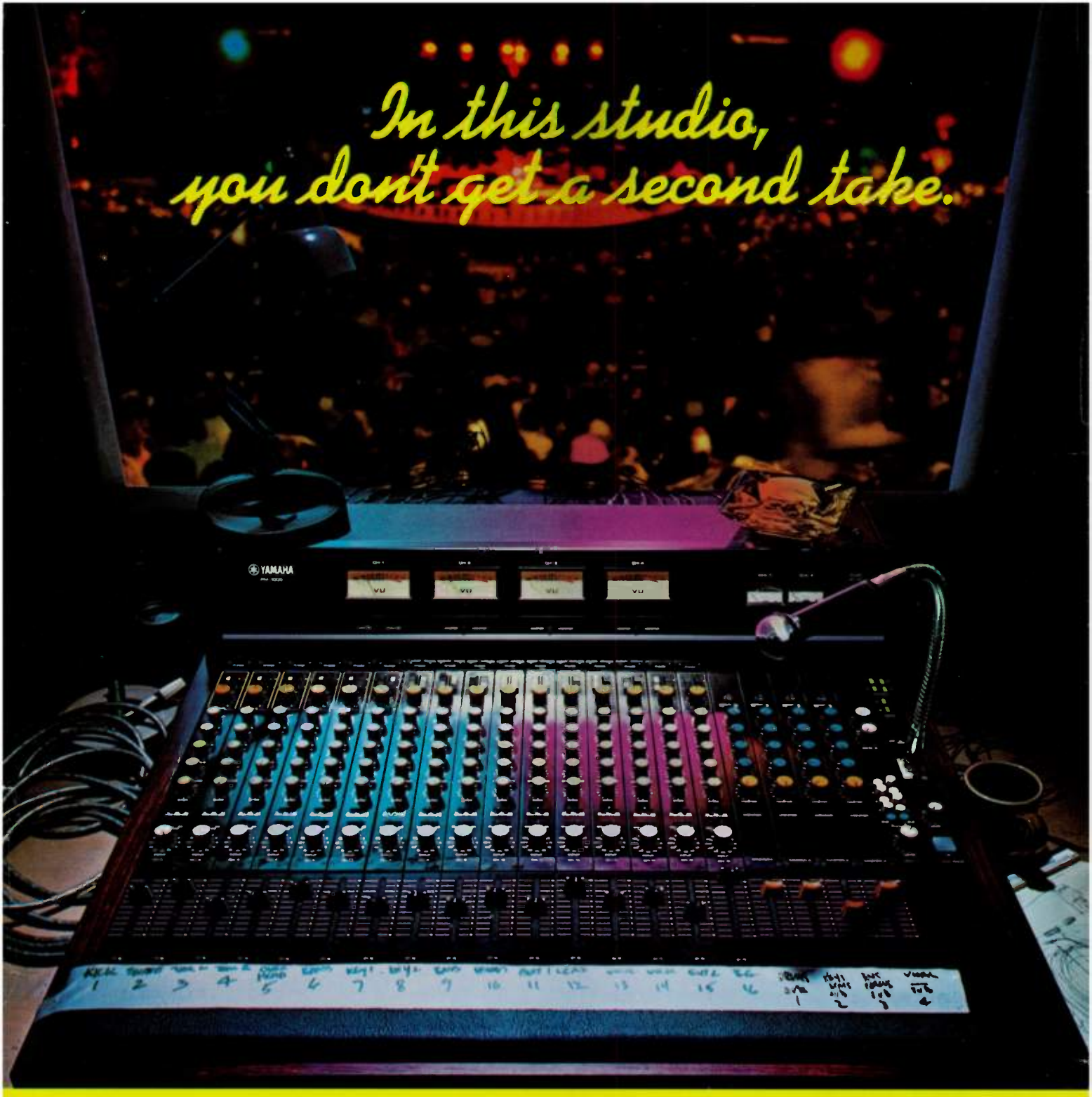
SEPT. 1978
VOL. 1 NO. 8

Artist Endorsements: Stacked Deck or Ace In the Hole?

How to Sell Mixers

Marketing the Modern Music Equipment Company

Seminar on Selling Creative Audio



When you perform in front of a live audience, you put everything on the line.

That's why you're so careful in selecting sound reinforcement equipment. Because once the music starts, you can't afford to have it stop.

At Yamaha, we know that the show must go on. Regardless.

That's why we designed our PM-1000 Series mixing consoles to the highest standard of quality and reliability. Professional.

Whether it's our 16-, 24-, or 32-channel model, the PM-1000 Series is capable of surviving the kind of punishment and abuse that only "the road" can dish out.

Tough isn't enough. Realizing that every job has different sound requirements, Yamaha also designed the PM-1000 Series for maximum flexibility. With features like an exclusive 4x4 matrix with level controls that allows four independent mono mixes.

There's also the complete complement of controls you'd expect to find on the most sophisticated consoles. Transformer isolated inputs and outputs. Dual echo send busses. An input level attenuator that takes the +4dB line level to −60dB mike level in 11 steps. Plus 5-frequency equalization. To give you plenty of headroom for clean, undistorted sound, the PM-1000 can drive a 600 ohm load to +22½dBm.

Get your band on the wagon. All around the world—night after night, gig after gig—you'll find Yamaha mixing consoles the choice of more and more professionals. People who don't regard professional quality as a luxury, but as a necessity. Your Yamaha pro sound dealer can give you all the reasons why you should join them.

YAMAHA

CIRCLE 98 ON READER SERVICE CARD

WRH

"The Omni gets those big polyphonic synthesizer sounds, plus bass and strings, all at the same time... and it's really fast." Allan Zavod/JEAN-LUC PONTY

Allan Zavod has performed and recorded with a wide range of artists, including Woody Herman, Maynard Ferguson, and the George Duke/Billy Cobham Band.

Currently touring and recording with electric violinist Jean-Luc Ponty, Allan's talent on synthesizers is provided the perfect showcase, particularly on the ARP OMNI.

"With Jean-Luc we go for a lot of big organ and horn sounds, and on the Omni you get some great brass and pipe organ tones. On one tune I use this church organ patch, and delay the violin and viola section. When the strings sweep in it creates a very eerie, mystical feeling."

Full, rich sound is an Omni trademark. The performer can choose from three separate sections to create striking textural and layered effects. The string voices — viola, violin, cello and bass — feature their own phasers and enhancement circuits to produce a lush, realistic concert hall sound.

"I've had some minor modifications done to the Omni by the ARP Custom Engineering Group, including a switch that lets me bring in some pedal effects instantly. The Omni is very fast in live performance, because most of the controls are immediately above the keyboard, and you can see exactly what's happening, even in the middle of a number. I might have a funky poly-wah sound on the Omni and, a moment later, be playing this outrageous combination of electric bass and brass."

The Omni-2 features a separate bass synthesizer, with acoustic and electric bass settings, plus a poly/synth section where you control the attack, decay, sustain, release, and filtering of dozens of keyboard and polyphonic synthesizer sounds and effects. You can mix piano and strings, piano and bass, brass and piano, or bass, piano and strings, in an incredible variety of combinations.

"When you're playing night after night, it gets down to the sound of the instrument, and it gets down to the reliability of that instrument. A musician will put up with a lot of crap if the instrument has a unique sound. But who needs it? Fortunately, the Omni has a great sound and it's solid as a rock... like all of my Arp equipment."

Thanks to Allan Zavod, and more than five thousand other great musicians around the world, the ARP Omni has become the most popular synthesizer in music history.

Play an Omni-2 where you see this sign,

or send $1.00 for a full-color catalog of the entire ARP synthesizer line. Write: ARP Omni, 45 Hartwell Avenue, Lexington, Massachusetts 02173.

ARPOMNI-2

It's the sound.

Listen for these fine artists playing the ARP OMNI:

Richard Tandy/Electric Light Orchestra • Kerry Livgren/Kansas • Steve Walsh/Kansas • Mike Mandel • Darius Brubeck/The New Brubeck Quartet
Les McCann • Roy Ayers/Ubiquity • Tom Scholz/Boston • Manfred Mann/Manfred Mann's Earth Band • Al Kooper • Stevie Wonder
The Commodores • Earth Wind & Fire • Bernie Worrell/Parliament • Greg Hawkes/The Cars • Tom Coster/Santana

CIRCLE 95 ON READER SERVICE CARD

At last, professional performance at less than a dollar per Watt!

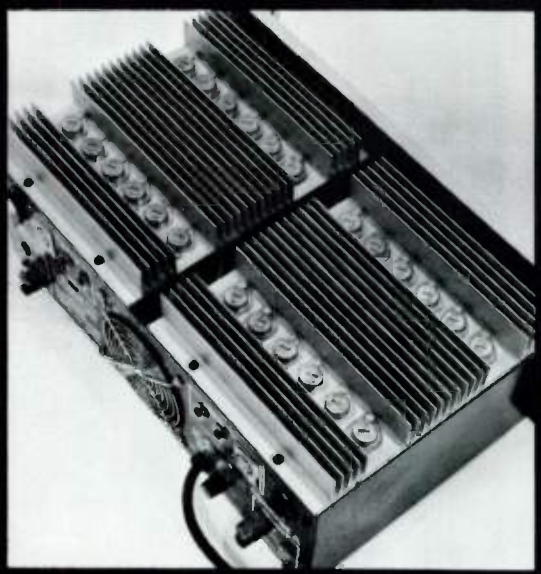
The latest high speed, high voltage, discrete technology combines with unique packaging and exclusive features to create the Peavey CS-800, a new stereo power amplifier that is unrivaled by anything on the market at its price.

The CS-800 produces 400 Watts RMS per channel. Overall that's 800 Watts of solid, high fidelity amplification retailing for only $649.50*. At about 81 cents a Watt, that's an incredible price for a stereo power amp with the CS-800's performance and versatility.

We invite you to compare the features designed into the CS-800. You'll see why no other power amp offers the value built into a Peavey.

- 5 Hz to 60 kHz response
- Less than .05% THD, 0.1% IMD
- LED overload indicators
- Loudspeaker protection system
- Balanced inputs and electronic crossover capabilities
- 19-inch rack mount
- Forced air cooling

*Suggested retail



The CS-800's twenty-four high voltage output transistors are mounted on massive, fan-cooled heatsinks for ultimate reliability even under the most demanding operating conditions.

Peavey Electronics Corporation
Meridian, Mississippi 39301

CIRCLE 86 ON READER SERVICE CARD

SEPT. 1978

SERVING THE CREATIVE AUDIO AND MUSIC ELECTRONICS INDUSTRY

SOUND ARTS

MERCHANDISING JOURNAL

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THE STAPLES

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How to Set Up a Repair Station
Matching the P.A. System with the Consumer's Dollars

Cover Art by
Harold Perry

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JUDITH MORRISON LIPTON
Editor

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Assistant Editor

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Contributors

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Art & Design

LIZ BEENER
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FRAN VITRANO
Art Staff

BILL SLAPIN & CO.
West Coast
Advertising Representative

VINCENT P. TESTA
Publisher

Editorial and Executive Offices
Sound Arts Merchandising Journal
14 Vanderventer Ave.
Port Washington, N.Y. 11050
516-883-5705

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A LETTER FROM THE EDITOR

The man said—most assuredly in jest—"We'll market a Judith Morrison Synthesizer." Which was a nice sort of fantasy although exceedingly fleeting, since reality does intrude. But it led to thoughts of the ego high, not to mention the money, that would be integral to my life once that signature synthesizer was in the stores. I would of course demand heavy promotion, ads featuring photos of me on stage, and careful attention to details of the instrument. Like Paul Anka, I would do it my way. That's perhaps part of the fantasy too.

Alas, I am not joining the ranks of Farah Fawcett or Billy Martin or the toothsome toothpaste users or any of the magical musicians who endorse the products we deal with every day. But endorsement programs have become as American as you know what, and they are particularly apparent in our field. And that started us thinking—not about endorsement programs per se, but about their effect on retail sales. However, like form and content, program and effect couldn't be separated. One depends on the other.

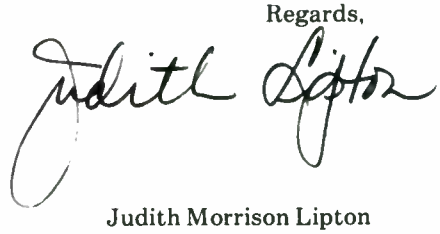
With no hard statistical data available, we interviewed a large number of retailers and manufacturers to establish the point of view and sales techniques under which endorsement programs work or don't work. What we found was a series of strong beliefs both for and against endorsement programs. The againsts were concerned with the *logistics* of endorsements. The fors were concerned with the *value* of endorsements.

They worked into consensus opinions and utilizations, which we are presenting in this issue. We urge you to respond to the article, and to offer further suggestions on how a *salesman* can *use* endorsement programs.

Fantasy has a place in the lives of all of us and the music industry is particularly susceptible to it. But some of the technology that is decidedly not fantastic and is rooted in firm physical laws nevertheless seems fantastic to customers. Wayne Howe, in "How to Sell Mixers," makes a plea for lessening the perceived black magic aspects of mixers for non-technical customers. While technical expertise has an important place in selling to knowledgeable technicians, there are other customers with dollars in their pocket who need another kind of rap and Wayne suggests some possibilities.

The moral of this issue seems to be to use fantasy when it is helpful (as it an be in selling stardom through endorsements) and to throw it out when it hinders (as in selling a mixer to a non-technician). So so long to the Judith Morrison synthesizer.

Regards,



Judith Morrison Lipton

HOW MANY OF THESE FINE MUSICAL INSTRUMENTS DO YOU CARRY?

Selling multi-track tape recorders without dbx tape noise reduction is like selling electric guitars without amplifiers.

Why dbx? Why tape noise reduction at the semi-pro level?

Easy. Because dbx tape noise reduction gives even the smallest studio the potential to make master tapes with full professional quality. With a dbx 155 or 158, you sell your customer an extra 30dB of signal-to-noise ratio on even the best TEAC, Otari, or TASCAM. Plus an extra 10dB of recording level headroom. Additive noise resulting from multi-track bouncing is virtually eliminated. Only dbx makes an economically-priced, flexible series of professional tape noise reduction units for today's aspiring recording artists and smaller studios.

dbx tape noise reduction is easy to operate, too. Level calibration is unnecessary, and gain riding is seldom required to produce noise-free, full dynamic range recordings.

dbx 155 and 158 are fully compatible with the professional line of dbx equipment used by larger studios worldwide. We supply 2, 4, 8, and 16-channel versions, as well as dbx mono and stereo compressor/limiters. So now your customers can make demos and take them right to the big guys for anything from an audition to a record pressing.

Sell a key ingredient that will help today's aspiring talents to become tomorrow's recording stars: dbx tape noise reduction.

dbx

dbx, Incorporated
71 Chapel Street, Newton, MA 02195
617-964-3210

CIRCLE 94 ON READER SERVICE CARD

FORUM

I insist that all three of my staff read each issue of SOUND ARTS and then turn the copies of the magazine over to our part-time staff and the crews that tour with our two sound systems.

I would very much appreciate it if you could send me three copies of the May issue.

Thanks for a very well presented magazine.

Garry Brown
G.B. Sound
Burlington, Ontario

My position at Crown demands that I keep up with the latest jargon and the most recent happenings in the audio field. SOUND ARTS meets that demand! Thank you for a well engineered publication!

Best Regards,
Dennis Sieracki
Crown International

I just read a copy of your magazine, SOUND ARTS MERCHANDISING JOURNAL. I was impressed with the whole issue, but especially interested in the section entitled "Terms." I would appreciate obtaining the previous sections.

Sincerely,
Holley Hughes
United Audio Recording
San Antonio TX

Received your fine magazine today for the first time and was impressed and overjoyed. Finally a magazine which will give up-to-date and accurate information concerning the ever-changing music electronics scene. It is a relief to be able to read an article that clearly explains material in an easily understood manner. Can I get copies of your back issues?

Congratulations on such a fine magazine.

Sincerely,
Sheila Quinn
The Music Workshop
Salem NH

Just a short note to congratulate you on SOUND ARTS—the formal and slick execution and approach. Congratulations on some fine publications.

Truly yours,
Michael Shane
Audioarts Engineering

I hear good words about your June 12 CES Creative Audio Market Seminar, and would appreciate any reprints or related information.

Sincerely,
Stephen Markow
The Boston Phoenix

[This issue of SOUND ARTS contains a transcript of the creative audio seminar—Ed.]

We would like to get reprints of Bob Heil's column "Terms" and any of Bob's articles. Perhaps you could send us past issues of SOUND ARTS. We are a new company in Albuquerque, but we have an active business and are serving the needs of many of the musicians in Albuquerque and New Mexico. Thanks for your assistance, and if there is to be a charge for Mr. Heil's articles, please let us know.

Sincerely,
Ann Gilbert
Blakely Pro Audio
Albuquerque NM

[Back issues of SOUND ARTS are provided free in reasonable quantities to "qualified" readers as long as stock holds out. Requests for back issues should be sent on company letterhead. Unfortunately, our stock does not allow for copies to those people not in the trade. Blakely Pro Audio, of course, is a qualified reader.—Ed.]

Clarification: In our July issue we neglected to give credit to the Sam Ash Music Stores on whose premises the cover photograph of a synthesizer display was shot. Our thanks to Paul J. Ash who allowed his store's routine and sales area to be disturbed for our cover photograph.

TERMS:

A CONTINUING INDUSTRY GLOSSARY

RECORDING

By Larry Blakely

The microphone input of a recording console is designed to interface directly with microphones since a microphone has a very low output level which requires a large amount of amplification to raise this low microphone level to "Line Level."

Line Level: Line level may also be termed *nominal operating level*, which is the level at which equipment used in a recording system or studio would indicate "0" on the Vu meter. This "0" level, reference level or line level, all of which are one and the same, is specified in volts (dBv) or dBm.

In the case of smaller consoles utilized for quarter-track, multi-track recording such as the TEAC TASCAM type (for example) the nominal operating level would be -10 dBv (.316V). In the case of the large multi-track format utilized by large studios, known as the half-track format, the nominal operating level is specified as "0" dBm (.775V). (The definitions and differences between dBv and dBm will be the topic of a column in the near future.) The important thing to keep in mind is that no matter which of the above specified nominal operating levels you may be utilizing, this nominal operating level is a great deal higher in level than the output of a microphone, which is typically .001V in a moving coil (dynamic type) and .003V typically for a condenser type microphone. The previous specified voltages will vary with make and model of microphones.

Line Input: This is an input which provides access to the recording console input after the microphone preamplifier for line level equipment. This line level input is used (for example) when feeding the console with the output of the tape recorder, when doing multi-track mix down. Other high level devices can be inserted here such as an equalizer or compressor/limiter, etc.

Mic Input Overload Indicator: Some recording consoles have an input over-

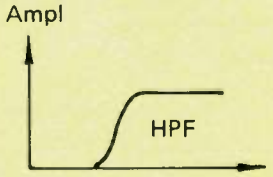
ELECTRONIC MUSICAL INSTRUMENTS & ACCESSORIES

By Mike Beigel

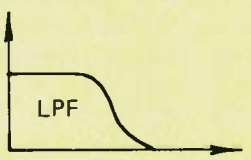
Voltage-Controlled Amplifier (VCA): An audio amplifier whose signal gain is varied by a control voltage. Usually the range of variation is from zero gain to unity gain so the VCA acts like an electrically programmable volume control. The signal input to the VCA is usually a voltage-controlled oscillator, a noise source, or some other "raw" signal to be processed. The control voltage is usually an Envelope Generator, or perhaps a low-frequency osicllatore for tremolo or amplitude-modulation effects.

Voltage Controlled Filter (VCF): A filter selectively amplifies some audio frequencies while rejecting others. This has a pronounced effect on the audible "timbre" of musical sounds. Voltage-controlled filters add the property of a dynamic variability of some of the aspects of the filter to greatly enhance the musical interest of the sound. In most VCFs the variable parameter is the "cutoff frequency," and the voltage-control is usually exponential (octave-per-volt). Voltage controlled filters are usually controlled by an ADSR or AR envelope generator, and by the Keyboard Control Voltage of the synthesizer.

High-Pass Filter (HPF): This type of filter passes the high frequencies while rejecting lower frequencies.



Low-Pass Filter (LPF): This filter passes the low frequencies while rejecting the high frequencies.



SOUND REINFORCEMENT

By Glen E. Meyer

[With this issue, Glen E. Meyer, Marketing Manager of Commercial Products at Electro-Voice, takes over the Sound Reinforcement column from Bob Heil, in continuance of our original concept of a rotating panel. —Ed.]

Sound Reinforcement: The "real-time" amplification of voice and/or musical instruments in the same acoustical environment, paying particular close attention to naturalness of reproduction. Properly designed sound reinforcement systems generally have most of the following characteristics: wide frequency response (depending on program material), uniform coverage at all frequencies while avoiding areas devoid of listeners, low distortion, low noise, time considerations having to do with the Haas or President Effect, and sound pressure levels adjusted such that they do not degrade the naturalness of the sound being amplified.

Ideal sound reinforcement might be defined as a necessary sound system not perceived by the listener when in use. A compliment to the person operating such a system would be, "Why do you, Mr. Soundman, have all this expensive equipment when you don't even use it?" Examples of sound reinforcement systems include church, stage, and certain types of stadium entertainment systems.

Public Address: The amplification of speech, with possible music reproduction capabilities, specifically designed with the intent of getting the spoken message across, with naturalness being generally a secondary consideration. Depending on the design goals, properly designed PA systems have the following characteristics: adequate response (not necessarily wide), controlled coverage and articulation, and adequate sound pressure levels. Examples of PA systems include paging systems, and systems for conference rooms, political rallies and sports stadiums.

Sound System Elements: A sound

TERMS: (CONTINUED)

A CONTINUING INDUSTRY GLOSSARY

RECORDING

load indicator (usually an LED type of indicator). It is illuminated when the mic preamplifier (input stage) is nearing overload that would cause distortion. This overload indicator provides a warning to the console operator that the mic preamp on the input stage is nearing a danger (distortion) point. This problem can be alleviated by switching in the microphone input pad or by decreasing the gain of the mic preamplifier with the Mic Gain Trim Control, described below.

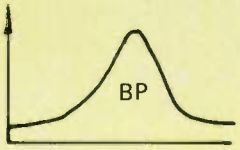
Mic Gain Trim Control: A number of consoles utilize a microphone gain trim control which adjusts the amount of gain (amplification in dB) added by the microphone preamplifier. This is a desirable control inasmuch as it will allow you to utilize more gain (amplification) when the microphone is placed far from a particular instrument or group of instruments. When microphones are placed very close to a particular instrument, it is desirable to have less gain (amplification) in the microphone preamplifier, inasmuch as the instrument is very close to the microphone and the microphone output is much higher than if it were very far away from the instrument. Therefore, such close miked instruments provide a higher output from the microphone, which requires less gain in the microphone preamplifier.

Such a Mic Gain Trim Control allows you to select the appropriate amount of gain in the microphone preamplifier required for different types of microphones (various types of microphones vary in output level), whether they are placed close or at a distance from an instrument or group of instruments. This includes vocals too.

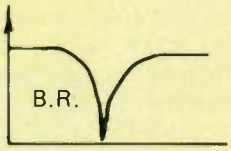
Mic Pre Out: This is an output available on some recording consoles that gives you direct access to the output of the microphone preamplifier. On such consoles, the mic pre out jack and the line in jack would normally be placed on the console rear on the jack bay.

ELECTRONIC MUSICAL INSTRUMENTS & ACCESSORIES

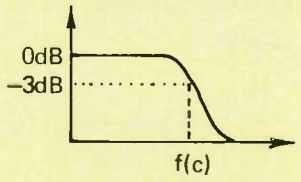
Bandpass Filter (BPF): This filter passes only a certain range of frequencies, cutting off frequencies above *and* below the so-called "pass-band."



Band-Reject or Notch Filter: The opposite of the bandpass filter, this filter only rejects a certain range of frequencies, in the so-called "stop-band."



Cutoff Frequency or *Center Frequency:* The frequency at which the filter "does its thing." For *high-pass* and *low-pass* filters, it is the frequency at which the filter starts to reject the signal. Customarily this is chosen at the point where the signal is 3 dB down from the "pass-band" response. For *bandpass* and *band reject* filters it is the centerpoint of the passband or reject band.



Peak or "*Q*": A measure of the intensity of "resonance" of a filter at its cutoff or center frequency. A high "Q" (of 10 or 20) indicates a pronounced resonance, whereas a low "Q" (of 1 or 2) indicates very little resonance or none at all. Strictly speaking, "Q" is the ratio of center frequency divided by bandwidth (3 dB points).

SOUND REINFORCEMENT

system consists of three basic parts—the transducers, the electrical components, and the acoustical environment.

Transducers convert one form of energy into another. As related to audio, the transducer is a device that converts acoustical, electromagnetic, or mechanical energy into an electrical signal. An example of these would be a microphone, tape recorder, and phono cartridge respectively. Another type of audio transducer would be the speaker, which converts electrical signals into acoustical energy.

The electrical components are the devices which modify, carry, or change the audio signal. These would include mixers, amplifiers, equalizers, limiters, compressors, attenuators, line and matching transformers, time delay units, connectors, and wiring.

The acoustical environment is one of the important, yet many times forgotten, elements of a sound system. Proper system design depends largely on the characteristics of the environment in which the system is used. A given system will not behave identically in two different rooms or environments. These measurable differences have to be taken into account in determining what the result will be and what must be done, if need be, to correct the situation.

Velocity of Sound in Air: It is, at any frequency, approximately 1130 feet per second, or 770 miles per hour. The velocity of sound varies slightly with temperature. The formula for calculating velocity is:

Where: $V = 49\sqrt{459.4 + {}^\circ F}$

V is velocity in feet per second

°F is temperature in degrees Fahrenheit

For metric calculations:

$V = 20.06\sqrt{273 + {}^\circ C}$

Where: V is velocity in meters per second

°C is the temperature in degrees Celsius

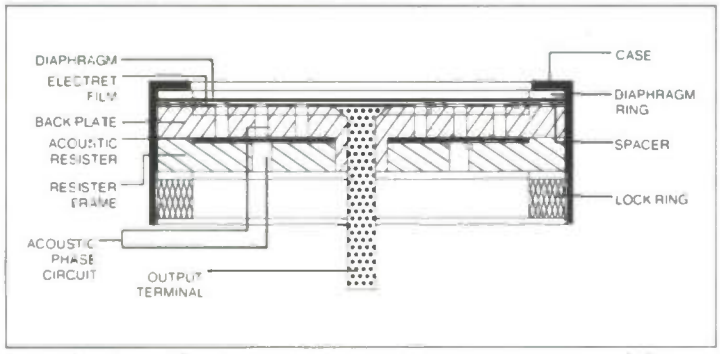
You can hear the difference because the difference is right here.

Take a look at what's taking the industry by storm. The Back Electret, another giant step forward from Sony.

Never before has it been possible for thin polyester film to be used in electret condenser microphones. That's because polyester film, acknowledged as the best material for microphone diaphragms, just can't hold a static charge for a long duration.

But Sony's engineers have made the impossible, possible. They've found a way to adhere the electret material directly to the back plate of the microphone. By thus putting the charge on the back plate, we are able to use polyester film in the diaphragm.

The result will be obvious to your ears. Clearly superior sound quality, without particular coloration in the upper frequency range. The low mass diaphragm means better transient characteristics over the entire frequency range.



You can find the Back Electret in four Sony microphones: ECM-56F, $220; ECM-65F, $210; ECM-33F, $165; and ECM-23F, $100.

But you don't have to look at Back Electrets to see why Sony is ahead.

NO MATTER WHAT KIND OF MIKE YOU NEED TO GET, WE'VE GOT IT.

Sony's microphone line is thoroughly complete. It ranges from professional condenser to semi-professional to microphones for public address, vocalists, and outdoor use. There's omni and uni-directional. And we think it's big of us to make sophisticated miniatures.

And all microphones are available with Phantom Power, battery operated, or both.

So if you need something to talk into, it makes a lot of sense to talk to Sony. Write to Sony, 714 Fifth Avenue, Dept. TK, New York, N.Y. 10019.

SONY AUDIO

TROUBLESHOOTERS' BULLETIN

CHECKING MICROPHONE RESPONSE CURVES

(1)

Your customer has purchased two microphones from you of the same brand and model, but he contends that one sounds better than the other. Well-built microphones of the same brand and model should be expected to have nearly identical response curves, so you investigate:

Connect each microphone to its own input on a mixer, but wire the cable on one of the microphones deliberately

(2)

electrically out of phase. Next, mount the microphones side by side facing the same direction and as close to each other as possible. Place a loudspeaker about two feet in front of and facing the pair of mics. Now play some inter-station noise from an FM receiver through the speaker. Adjust the mixer input control for one microphone upward until the VU meter reads 0. Note the knob or slider setting and then return the control to off. Repeat the process with the second microphone, making

(3)

sure that both input channels are read by the same meter. Finally, bring both levels back to the noted positions.

If the microphone curves are closely matched, the meter reading should have dropped 15 dB or more. If not, the microphone in question should be returned to the manufacturer for service.

GREG SILSBY
ELECTRO-VOICE

BATTERY POWER

Eighty percent of repairs on battery-operated products wouldn't have been sent back to us if a new set of batteries had been tried. If a unit is not functioning, put a new set of batteries in. It's that simple. If the unit is not functioning or is giving a distorted sound or the effect isn't working properly, but signal is still coming through, absolutely the first thing

that the musician should do - even before he goes back to the store - is to try new batteries.

Put in a proper 9-volt battery. Frequently we have a problem with people using a 10-cent battery which is dead practically before it is purchased. A good quality battery will not create a problem when it dies, but a cheap battery may be leaky and damage a unit. If a cheap battery is used, the unit may be non-functional in an hour, so it's sent back to us with the battery still in it - and it's completely dead.

If any of our products are not going to be used for awhile, if there is a good battery in it, it can stay there. Pulling the jack out, pulling the guitar cable out, or switching a switch will turn the battery off. As long as the battery is turned off, there's no problem.

HANK ZAJAC
MUSITRONICS

Do round wound strings result in more distortion potential than other types?

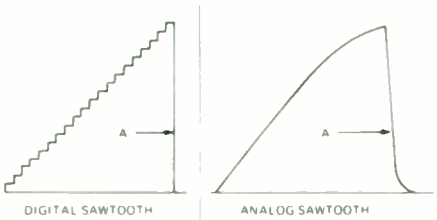
Round wound strings result in a tendency toward more buzzing. Buzz is different, in my mind, from distortion, but it does give you a lot of extraneous noise. You are going to get a lot of buzzing, as though you were getting fret buzz. Although they are brighter, round wound strings tend to have a rougher sound. The *fret buzz*, when amplified, can sound like distortion.

Dan Smith
Yamaha

What is the difference between analog and digital oscillators?

A recent development in synthesizer technology is a new and versatile type of circuit design: the digital oscillator. This oscillator or frequency generator provides for many outstanding features that are unavailable on synthesizers designed with analog circuitry.

Some input about analog is required here. Basically, an analog oscillator uses a voltage change (i.e., 1 volt



NOTE A. The rise and fall angle of this side is most important. The more vertical the line is, the greater the harmonic content of that frequency. The more harmonics produced, the richer or fuller the note.

change per octave) to adjust frequency. Consequently, the accuracy of the frequency is dependent upon voltage tracking. Analog oscillators also produce only one waveshape, and alter the waveshape by shaping circuits to achieve others. This is known as subtractive synthesis, or the cutting and chopping of the waveform.

The difficulty here is that the shaping circuits are generally subject to limited frequency ranges. In the lowest and highest ranges, the waveshapes take on different forms as they are not within the bandwidth limitations of the shaping circuitry. Thus, their accuracy and purity is highly unstable.

The digital oscillator eliminates all of these synthesizer problems. Essentially, digital means a numerical generation, or number plotting, of the frequency and waveshapes of the oscillator. The musician is no longer committed to the standard waveshapes, as all waveshapes are accomplished by electronic switch closures in a predetermined sequence. Accuracy is vastly improved, waveshapes are unlimited, and the ability to interface the oscillator with an inexpensive microprocessor-controlled sequencer is greatly enhanced.

In the digital approach, as stated above, the waveforms are generated by electronic switch closures. A good comparison here is dominoes falling in sequence with the sequence of the falling switch closures drawing the waveshapes. There are no smoothing filters or shaping networks. This is known as additive synthesis.

For the musician, digital means a major advantage in not only the technical benefits from an instrument, but the creative ones as well.

Douglas Bryant
Music Technology, Inc.

What is a decibel?

The expression of measurement known as the decibel (dB) is a ratio between two points, meaningful only when one of them is assigned a value or reference point. Different types of measurements are expressed in decibels; among them are voltage and sound pressure level.

In voltage measurement, the common standard of reference is that .773 volts RMS equals 0 dB. The master fader or gain on a mixer or power amplifier is often scaled in dB voltage, wherein maximum gain would equal 0 dB. Fading into the "minus" dB figures on the scale would attenuate the signal, dropping the voltage in dB, with the effect of lowering the volume. Attenuation on a pad on a mixer works on the same principle, and is also measured in dB. Attenuating from 0 dB to the higher of the negative numbers, the input signal is cut, down to minimum gain.

Some manufacturers use their own reference points to suit their particular needs, so it is not unusual to find +10 dB equaling approximately 2.5 volts RMS, or +20 dB equaling approximately 7.75 volts RMS. The term "dBm" indicates a decibel with a reference of 1 milliwatt, or .773 volts RMS across a 600-ohm load.

Sound pressure level is also measured in decibels, with the standard reference point of 0 dB signifying the absence of sound. Normal conversation measures about 60 dB on a sound pressure level meter; street traffic would be about 65-80 dB; the average rock band in concert approximates 110 dB. 130 dB spl is commonly specified as the threshold of pain.

Attenuation is generally calibrated in 3-dB steps, as the addition or subtraction of 3 dB is the minimum sound pressure level change that can be perceived by the untrained human ear. However, every added decibel (or fraction thereof) represents a *multiplication*—not an addition—of power. Every added 3 dB is actually a doubling of power, and, of course, every subtracted 3 dB halves power.

Microphone sensitivity is measured in dB referenced to the .773 volt standard (0 dB = .773 volts RMS). This sensitivity is given in negative numbers, which signify higher sensitivity or voltage output as they approach zero dB. A mic with a sensitivity of -38 dB is more sensitive than one with a -58 dB sensitivity.

William L. Robinette
Highland Park, IL

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CIRCLE 96 ON READER SERVICE CARD

By Craig Anderton

MIXER INPUT MODULES

As we saw last month, a mixer combines several signals together. A simple mixer performs the mixing function *only;* in other words, the various inputs go directly to the mixing circuit, where they are mixed together into a blended output. However, more complex mixers include a series of modules, capable of conditioning or modifying sound, between the input and the actual mixing circuit. Thus, before the various input signals are mixed together, they may have their level, tonal quality, or some other parameter changed via processing through a module in the input section.

Manufacturers do not offer identical input modules from one mixer to the next; in fact, what gives any one manufacturer's model a competitive edge over any other manufacturer's model will often be the configuration of the input module. As a result, understanding the features, and differences, found in input modules is beneficial to both salesperson and customer.

To make things simpler for now, we'll assume that your signal source is already electrically coupled into the mixer . . . so we won't worry about whether our signal source is a balanced line or an unbalanced line, and we won't worry about the level: We'll assume the mixer can accept any type of signal we throw at it.

The first option you might encounter along the signal path would be a *phase switch.* We'll illustrate what it's used for with an example.

Let's say you have two microphones set up to mike one instrument; and when you listen to either mic by itself it sounds fine, but when combined together, the overall sound of both mics is thin and strange sounding. Chances are you are having some kind of phase cancellation problem, and flipping the phase switch could solve the problem by reversing the phase of one of the microphones. Phase switches don't cost that much extra, but they can really make life easier when recording or doing PA work.

Next in line of signal processors is a *mic preamp.* If your input signal is too weak for a tape recorder or power amp to handle, you may use this module to boost its strength. The typical mic preamp will have variable gain over a wide range, so that the input channel will accept anything from a low-level microphone signal to a high-level output from, say, another tape recorder. It's also possible that the preamp will have some kind of *clipping indicator;* this is a small light which, when it blinks, means you're overloading the preamp stage and should backdown on the gain. Clipping indicators are like phase switches in one respect—once you use these devices you'll wonder how you got along without them.

A final mic preamp option is a *low frequency rolloff filter.* This is typically a very sharp filter that cuts out low frequencies (say, under 80 Hz). This can help eliminate mic "popping," boominess of certain instruments, room rumble, 60 Hz hum, and the like.

After the mic preamp you'll find the *equalization* module, often abbreviated as the EQ module. This module is one of the most important parts of a good mixer, and is where boards exhibit the greatest differences.

An equalizer is a tone control circuit; it can vary from a very simple circuit to a very complex one. However, the most complex equalizer is not necessarily the best . . . different types offer different advantages that appeal to different types of musicians. The reason equalization is important is principally that the transducers used to record musical instruments (i.e. microphones, guitar pickups, contact pickups, and the like) very seldom have a flat frequency response. The equalizer can make this frequency response "equal" (hence the name) throughout the audio spectrum, so if one mic sounds "duller" than another, adding some treble can brighten up the mic. However, I suspect hat even if transducers were perfectly flat in response, people would still flip over equalizers . . . they allow the mixing board engineer to add sheen where it isn't, brightness where it wouldn't be otherwise, or take away bass from boomy instruments. One guitar may be processed through 20 different equalization settings to sound like 20 different guitars—another reason for the equalizer's popularity. It can add variety by "shaping" a sound.

Incidentally, you'll sometimes hear recording engineers say that equalization isn't as important as it's cracked

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up to be. This may be true for the recording engineer who has a wide variety of extremely accurate and expensive microphones to play with (as well as perfect acoustical spaces), but the average musician cannot afford to color a basic sound by choosing from thousands of dollars worth of mics, and therefore looks to the equalizer for salvation.

The ideal equalizer would be able to do the following: put any kind of boost, or any kind of cut, anywhere in the audio spectrum, adding no noise of its own and affecting the natural sound of the instrument as little as possible (no distortion, frequency selective phase shifts, and the like). This is a tall order, to say the least, although some types of equalizer come close.

The simplest type of equalizer simply boosts, or cuts, starting at two fixed points in the audio spectrum (caled "bass" and "treble"). Next step up is to add a boost/cut option in the midrange region. The next improvement after that would be to make the frequency of the midrange boost/cut variable or step-selectable, so that this effect could go anywhere you wanted in the midrange area. After that, how about another pair of switches to change the fixed bass and treble points to variable bass and treble points? That way, you could start boosting the bass at 100 Hz if you wanted to, or maybe 50 Hz if that seemed to you to be more in order.

Some mixers use a type of equalizer called the *parametric equalizer.* The details are subject to change from manufacturer to manufacturer, but the basic idea is to divide the audio spectrum into 3 ranges—high, low, and mid. Each range has a control that may select any frequency within that given range; anothe control adjusts the amount of boost or cut at that frequency, and yet another control determines just how drastic, and over how wide a part of the spectrum, the boost or cut shall be. While very versatile, it takes restraint and experience on the part of the parametric operator to get natural sounding effects since there are so very many options available. Some people will use an equalizer just because it is there—these people can become really dangerous with a parametric in their hands!

However, there are still other types of filtering circuits . . . such as the graphic equalizer, but these tend to be far less common in mixing boards so we'll skip over them now.

Personally, I prefer having very simple equalizers in my boards to keep the costs down, but also having a wide variety of outboard filtering and equalizing accessories at my disposal. That way, I can patch in ultra-sophisticated equalization only when needed, and have many different filter types available rather than the same kind of equalizer repeated over and over again for every channel. However, if a mixer is to be used for PA, this type of leisurely patching is impossible . . . for PA people, having a mixer with the best equalization facilities possible is the way to go.

An important aspect of the input module is that it should have some kind of provision for patching in external devices. The best place to do this is between the preamp and equalizer, because that way you can drive external devices with high level signals from the preamp, but you can also further condition the sound coming from the external device with the equalizer. With these patch points, you can add flangers, phase shifters, other filters, echo units, and the like. This is often preferable to having effects busses (where each input can mix into a specific effect whose output then returns to the mixer) because it allows different channels to have different effects.

One of the handier effects to patch in is a *noise gate;* this is a device that cuts out noise on a given channel when there is no one playing through that channel. If you have 10 singers, each with a microphone, having all channels open at all times can result in a sea of leakage. Having noise gates that trigger on each singer's voice alone can really quiet things up.

Unfortunately, there are many other aspects of the input module it would be nice to cover, such as impedance matching with the outside world, channel selector switches, meters/LED indicators, and the like. However, I'd really like to stick to basics only in this column; and we've already spent last month and this month on mixers, so it's time to move on.

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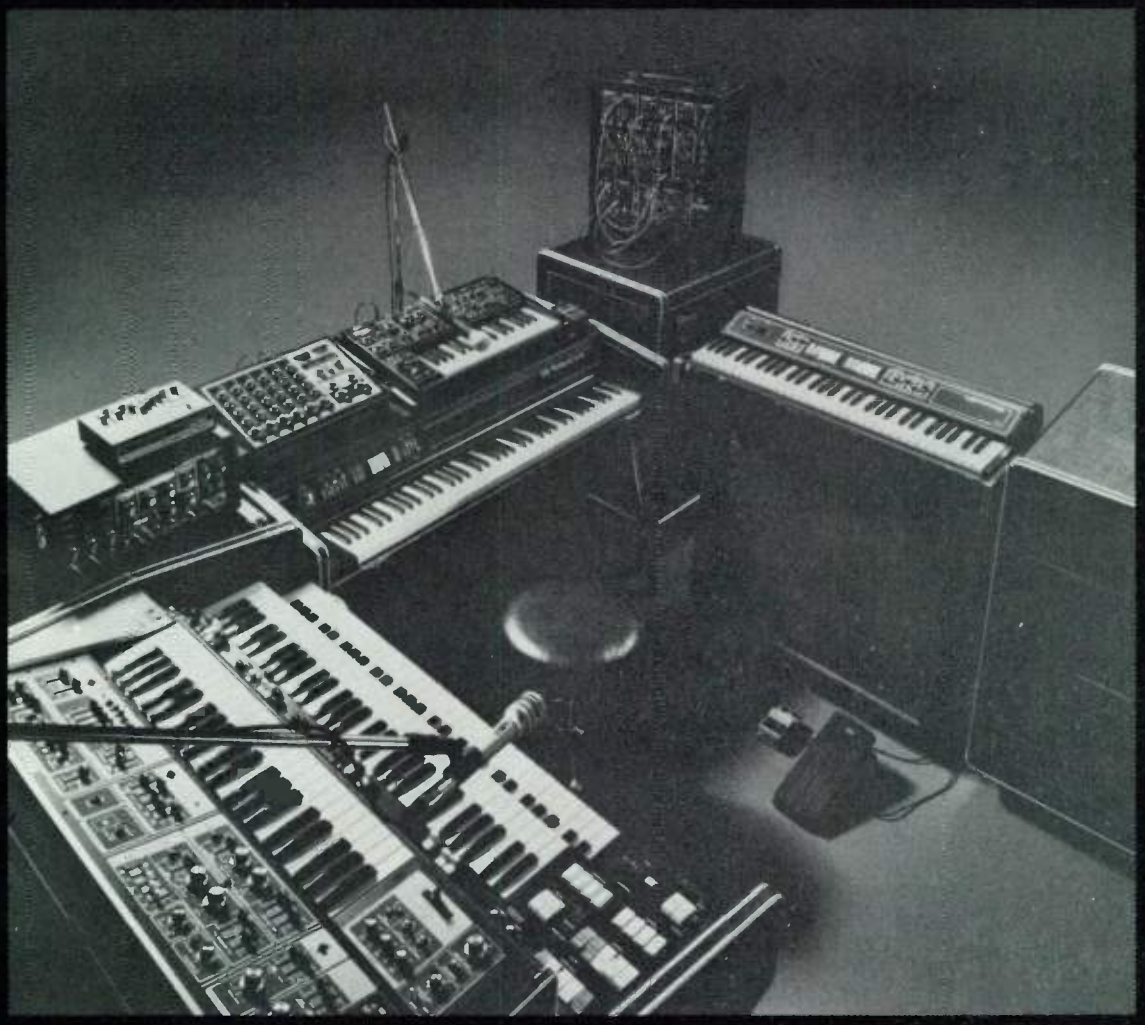

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CIRCLE 93 ON READER SERVICE CARD

10-102

STAYING ALIVE

MARKETING
THE MODERN MUSIC
EQUIPMENT
COMPANY.

By JOHN BOYLE

On Tuesday evening, August 8, 1978, John Boyle was killed in an automobile accident en route between St. Louis and Chicago. This article, as titled, arrived in our offices on Thursday the tenth. It appears complete and untouched. To those of us lucky enough to have known John, he was a "brother" who knew the meaning of the word and lived it to is fullest. He will be "Staying Alive" in our minds and hearts.

—Vinny Testa

The business of making music is making hay like never before. And while the sun shines on the whole musical world, related entertainment strongholds like the movies and television are sprinting in breakneck competition to get a foothold on the bandwagon. What movie or TV producer, sniffing about in a greedy heat, wouldn't sell his own mother's xylophone to get a piece of the latest incarnation of "Saturday Night Fever" or "The Donny and Marie Show?" It seems the whole entertainment industry is trying to chronicle the revolutionary impact of music on the very fabric of western capitalistic society since the early fifties. So feverish is this race, one fully expects to see the next box office bang carry a title like "Buddy Holly and Sgt. Pepper Grease The Rolling Stones."

Of course, none of this is lost on the economist in us all. We know that for every frivolous buck spent on the latest syrupy waxings from the Bee Gees, another buck will be spent on goodies like microphones, amplifiers, mixers, phasers (for that Bee Gee "sound"), guitars, synthesizers, stage monitors, roach clips, recording engineers, multi-track tape machines, roadies, groupies, stadium & studio rentals, cables, connectors, cases, concert tickets, coke spoons, t-shirts, belt buckles and bedlam. All these "necessary" trappings of the music biz have come to account for a substantial posture in the world economy.

Finding your way into and surviving this world could prove to be a fatally doomed venture unless you come equipped with some basics. For purposes of brevity and in keeping with the intended focus of this magazine's expressed editorial position, we offer forthwith a short combat survival course for manufacturers and dealers of today's music equipment. To properly set the stage for this exposé, we should review our history in order to afford us the observation of our phenomenal maturation since the mid-sixties.

When the first fuzz-box hit the proverbial rock'n'roll music store, the salesman's closing gambit inevitably was, "It makes this crappy little Japanese solid state amp sound like a Fender Twin (pre-CBS, of course) with JBL's set at full tilt, man!" Ten years ago the most complex issues of the day for suppliers and dealers were the back-order status of Martin and Fender guitars and squeezing an extra 10 percent out of a string order. There are significant exceptions to this analysis, of course. Truly, much of the basis and foundation for today's technology was well-established and fermenting long before just ten years ago. But the prowes with which the factory or dealer encountered his consumer was feebly inept. Artists' endorsement ad campaigns were popular then. The Rolling Stones used Ampeg, so that was probably enough to encourage the sale of Ampeg SVT bass guitar systems. Almost all of yesteryear's literature and graphics qualified as winners in "The Suck the Big Boot Awards." Ads and literature, of course, were the exclusive bailiwick of manufacturers, so in these particular matters dealers didn't have to share in their shame. But dealers had their own areas of "expertise." Horror stories of the poor, befuddled, paranoid consumer embarking on his first affair with a recording or P.A. system are familiar to most of us. Many dealers were responsible for providing a shot-gun wedding for this starry-eyed lover, then leaving him in the breach when the wedding night came and nobody was there to run the wire and set levels (and all those other complications of "that first night"). A lot of premature divorces were caused that way.

Nonetheless, the enduring innocence of those electronic "dog days" still holds a valuable lesson for us these ten short years later. As we stand on the brink of cosmic rejuvenation via the graces of digital technology, we must not forget the purpose for all of today's whizz-bang, gaunch-modulated gadgetry: the working musician, be he a weekend warrior or Peter Frampton, a promising amateur musician turned engineer or Steely Dan & Company cut loose in a 24 track studio. The multitude of new companies who produce electronic paraphernalia, and the scope of these products' uses would fill a directory the size of this summer's Namm Show Guide. And where in all this confused growth over the past ten years is our fledgling consumer? Still confused. But he's not the only one. The manufacturers and dealers of this new found electronic opulence are now confronted and confounded by the most significant challenge in music since Beethoven lost his hearing.

WAH-WAHS & FUZZ BOXES GROW UP

Thankfully, the horror stories are few and far between these days. Even the most turnip-truck-tinged amateur can seek and get good advice from any number of metropolitan and secondary market dealers. Manufacturers have grown up quickly in our neighborhood, too. Look at some of the slick, sexy and hip ads around. Check out the stunning and informative literature of companies like JBL, MXR, Tascam and others. To be sure, there's still a lot of silly old crap lurking here and there, but the newest generation of marketeers are firmly entrenched and mean to stay that way. Holy direct boxes! We're beginning to take on some of the sizzle and sparkle of the consumer hi-fi and photo industries. What's it all coming to? With dealers running full-page, four-color ads and studios producing facilities brochures that would do a Madison Avenue ad man proud. Advertising and literature materials are no longer the exclusive domain of the manufacturer. Dealers and end users have scooped the trend also.

One begins to see this exceptional ten years growth as rather unique when we examine the evolutionary techniques of marketing and distribution in fully matured industries like photographic equipment, automobiles, appliances and hi-fi. We note they didn't blossom nearly as quickly as we. They didn't have to. But why? Surely the technological advances were as tumultuous. For the answer, we need look no further than the musician. It makes little difference that he may be pro, semi-pro or amateur. His muse still expects and exacts a rare form of art. Even in the days of the Ancient Greeks, the musician was the most revered of the artists. The painter, sculptor and architect were exalted greatly, but not like the musical poet. Anyone can snap a picture, drive a car, microwave a hotdog or listen to a record on the hi-fi. How many can create and perform a work of music? Damn few, really. And yet, until recently, our modern musicians got a pretty raw deal. Screwed at almost every turn by the record labels, picked up and dropped by managers like so many dominoes, lied to and hurried along by this or that producer, one could hardly say the aspiring pro musi-

cian really controlled his artistic destiny ten years ago. Yet today, streams of Class A material pour forth from barroom stages and garage studios across the land. Material conceived, arranged, performed, engineered and produced by many of these very same people who ten years ago stepped into their first Shure Vocal Master and Teac 3340.

As proud as manufacturers and dealers should be of their accomplishments recently, kudos for our hero, the musician, are also in order. He's the one that truly catalyzed our sudden sophistication. By demanding knowledge and performance in the pursuit of his art, the musician finally served notice on the business community that he had become a businessman too. This deceptively simple concept has set the stage for tomorrow's movement of gear and services. Our musician (your customer) has every right to expect the following from you for the next ten years:

EDUCATION— THE BRAIN FEEDING THE POCKETBOOK

Even more than the advancing march of technology, education has spurred on our modern musician. Education has been the single most critical factor in bringing our consumer along for the ride. Through education, the old adages take on significant and realizable import; the guy who just bought a four-track machine today will want the eight-tracker tomorrow. A pleasant kind of disease for the dealers and manufacturers to spread. Of course, just like their counterparts in the medical profession, they have certain responsibilities where a new disease is rampant. That responsibility is clear—they must educate their customer (or patient, if you will). How else can we convince the newly inoculated owner of an eight-track machine that his cure can be complete if he'll just submit to a few doses of noise reduction? Manufacturers like JBL, Altec, Tascam, Peavey and others who have made sizable investments in teaching their dealers have been rewarded with strong loyalty, and consequently strong sales. And those dealers who take a strong stance in educational selling are turning their inventories at an enviable pace. This mass education program requires support at many levels.

ADVERTISING—OR, SPENDING MONEY WITH A SMILE ON YOUR FACE

Did you ever hear an ad agency executive lay this one on a prospective client? "Advertising is *not* a cost of sales, it's an *investment!*" And while we suppose there may be a kind of convoluted truth in the thought, its relevance in real life is a lot of crap. If you don't expect to see immediate and palpable increases in sales as a result of your efforts, then don't advertise. Happily, very few companies in our business place ads and see no results. It has become a truism in our time that so many hungry young end-users are extant, there doesn't appear to be an end to the volume of input they crave.

There are a few essential guidelines to consider in your campaign, however. In every ad campaign we've designed for manufacturers or dealers, we hasten to point out to the client that when he advertises, he is communicating as much with his competition as he is for his ultimate customer. This is crucial to remember, for this mechanism more than any other allows the industry to monitor itself. If a manufacturer places an ad which boldly misleads (or even outright lies), watch the alacrity with which competitive manufacturers capitalize on his folly. This is even more true on the dealer level.

If you want to survive in the years to come, you should be advertising. Print media are by far the most effective methods (magazines, industry journals and trades, special industry directories, etc.). Avoid the electronic media (impossible to focus demographically for the dollars involved). Also, extremely important is an on-going mail campaign. Never (we repeat, never!) fail to add to your mailng list anyone who has contacted you regarding your products or services. It makes no difference how the contact has been made—mail, phone, walk-in, telegram, telegraph, telex, coded dispatch, pigeon or slow boat from Burbank. Keep your list active and accurate. Announce special sales, new product tech-data, upcoming show participation or training seminars (see Linda Feldman's fine articles on training in this magazine, vol. 1, nos. 5 & 6). Anything to keep your name in the mind of your customer. Once a month or every six weeks is good for the mailer. Many companies run their mailings as "newsletters." The graphics used to present your company's print media communications should reflect professionalism and a commitment to technology. Unless you have formal training in graphics and layout, don't do it yourself. Also, don't have some friend who "drew a little in school" do it. If combinations of purples, greens and yellow are your idea of striking and effective ways to get attention, then hire an agency. Also, try hard to say something new about yourself with each new effort. Avoid terms like "the best," "the most comprehensive," or "totally unique and proprietary." Unique and proprietary products and services don't exist in our business today, and excessive hubris will surely be punished.

DISTRIBUTION— THE TERRITORIAL PREROGATIVE

Several years ago, many of the suppliers in our industry got the notion in their heads that there was only one way to protect the profitability of their distribution systems—fair trade. Of course, the FTC was of a different mind. And so was our hero, the musician. Unfortunately, the FTC is still meddling today when they're no longer needed. (We wish they'd move on to new pastures and quit monitoring our phone calls.) But the import of the service they performed by abolishing fair trade helped us effectively deal with the proper methods of insuring profitability.

During the last days of fair trade and for a period of time after its abolition, dealer profits did undergo some severe traumas. Our analysis in retrospect shows us several evolutional (and quite natural) influences on that condition. Whenever any industry undergoes a boom period, as ours as, there are initially many more qualified buyers than there are qualified sellers. This condition leads to drastic pricing battles on the consumer level. As scores of new dealers take on recording and P.A. inventories, they are unable to differ much more than on low prices. After all, it takes time to build a competent and knowledgeable sales force backed by comprehensive, cost-effective technical services. Because you've got to move gear to stay in the game, the new dealer finds it difficult to resist slashing prices (particularly if

he's been sitting on that costly opening order for a few months). And so many established dealers find themselves playing teacher to the customer, only to have the newly educated customer go down the street to consummate his purchase. It's only natural for the customer to do this. But what happens when the wedding night comes? The answer to that question has come to pass. In the course of his education our consumer did indeed learn at least this lesson: Manufacturers and dealers in this highly complex business of electronic instruments and equipment are entitled to a reasonable profit out of necessity.

Any pro-audio dealer who says he can live on less than 27% to 30% gross profit is either very naive or is lying. Levels of 45% to 60% are required for a healthy manufacturer. And why not? The really slick new products of tomorrow are ging to come from the healthy manufacturers, not the guys who spent their night agonizing over the "float factor" in that day's checkbook balance. Show me a supplier who invests in R & D, then tools up to build and supply his version of a recording mixer at depressed profit levels, and I'll show you a future civil-service employee.

In short, and in conclusion, the ways and means of profitable survival for today and tomorrow should be clear. Ongoing investments in the mass education of our market should hold top priority consideration for us all. This should be the anthem and theme of our communications efforts. Education, not edicts, is the way to control and develop a clean distribution system if you're a manufacturer. If you're a dealer, be prepared to equip your facility for the benefit of your client. Give your customers access to your expertise (and the expertise of others). The more you give them, the more they'll want. Insist on your profit. Don't be afraid to walk a consumer who seems to take more joy in the price grind than the product he has inquired about. He's probably the one who deserves the price cutter down the street.

John Boyle was co-founder of Express Sound and former marketing manager of the Tascam Series, among other involvements. At the time of his death he headed up his own marketing and consulting firm—Image Marketing in Nashville.

Seminar on Creative Audio

Midway through the Consumer Electronics Show, MODERN RECORDING and SOUND ARTS MERCHANDISING JOURNAL sponsored, in cooperation with CES, the first ever seminar on the Creative Audio Market. The seminar was moderated by Vincent P. Testa, publisher of the sponsoring magazines. The panel was composed of several knowledgeable industry members:

George DeRado is the past president of TEAC and the current president of Damark Industries, a manufacturer's representative organization. He was the recipient of the 1976 Billboard Trendsetter award for "expanding the market for semi-professional sound equipment."

Jim Ford is the president of the five-and-a-half year old Ford's Audio & Acoustics Inc., a two-store operation in Oklahoma specializing in sales of professional audio equipment and installations of sound systems and recording studios.

Hank Greenberg is director of merchandising of The Federated Group, a five-store west coast electronics chain handling both high fidelity and creative audio equipment.

Sid Zimet is president of Audio by Zimet in Roslyn, New York, a twenty-year-old operation handling moderate to high end hi-fi and semi-professional and professional recording equipment.

David Schulman is executive director of CAMEO, the Creative Audio and Music Electronics Organization.

Because, obviously, all of our readers did not attend CES or the Creative Audio Seminar, and because this was the first CES event to focus so intensely on the major interest of SOUND ARTS, we are printing some of what was said in Chicago.

Testa: To begin, let's try to define the creative audio—semi-pro market. What makes up the market in terms of product?

DeRado: I think you could say, essentially, recording equipment and sound reinforcement and sound reproduction equipment. However, there is a peculiarity when you talk about semi-pro as against professional equipment. When you bring out a semi-professional product, you bring out a product where the cost consideration is very important. So you develop these products with that cost factor in mind all the time.

Testa: The products involved in this marketplace are, we know, mixers, recording equipment, signal processing devices, equalizers, microphones. These are very different from tuners and integrated amps.

Schulman: I think you leave something out and that's what Cameo is about. The musical instrument industry and the audio industry tend to dovetail at a point where electronic and musical instruments become a product category.

Ford: I think the whole market centers around multi-track tape recorders. Almost everything we sell is going to be related to a multi-track tape recorder.

Zimet: The common link, and it shows up in the use of the equipment, is the word *creative*. The piece of equipment that you sell is a *creative* piece of equipment. Unlike the audiophile who is looking for sound that is true and uncolored, our customer is looking for equipment that presents a broad spectrum of color and allows him to create the colors he wants —sonically. The person we are dealing with is creative; he thinks sound should be more than a guitar with four strings. And he thinks that the reproduction and the effects that you do with sound are something more than two microphones and directed into a tape recorder, which is a very valid way of producing sound, but not necessarily a way of creating music. The musically creative person is our biggest market—whether he's the writer, the producer, the arranger or the musician.

Testa: Let's not leave out the guy who might not be musically inclined, but uses semi-pro equipment as an expression of his creativity.

DeRado: We broke that down at TEAC. We dichotomized it into a passive type of individual who sits back and listens to music and the activist individual who is a hands-on creative kind of guy constantly doing something with the equipment.

Testa: So we're not talking about high end equipment. There is a strong line between high end or esoteric audio and creative audio or semi-pro and that ties in to the end user in the high end audio side being a passive type.

Greenberg: There's a mix there. I don't think you can define it that clearly. There isn't just someone over here who does semi-pro recording and someone over there who doesn't do semi-pro recording. I think that there is a definite person who is a high end or esoteric enthusiast who will get into some form of semi-pro gear. He'll buy a piece of equipment for a short period of time or he'll use a piece of equipment in his own hi-fi setup and he doesn't know it's semi-pro. Therefore, you're going to have somewhat of a mix.

DeRado: Another possible emphasis is what the person who is using the equipment *thinks* he's doing. He thinks he's a pro, so semi-pro is something he would not accept. Whether he's making money at it or not, if he's doing it for what he considers vocational rather than avocational purposes, from his standpoint, it's a commercial venture whether he's in a garage or a fancy studio he's built for it.

Zimet: I think the word semi-pro is probably the biggest hang-up we have, and the biggest pain in the neck we have.

Testa: I like the term *professional consumer* better.

Zimet: I don't like either one. People come into the store and they want to know what the differences are among a professional piece and a semiprofessional piece and a consumer piece. In some cases some lunatic manufacturer decided he needed three price sheets to define it. You know the cases. It's the actual capability of the buck. I think creative really tells us where it's at.

Greenberg: I agree. I think it's the product as much as the person who is using it.

Testa: The musician might not have the annual income that seems to justify his spending $3,000 for a mixing board or $1,300 for a tape machine. Yet we have audio manufacturers right across the street at McCormick Place apparently jumping into the market. Based on studies that say in order to buy this piece of equipment the guy should be earning $25,000 a year, how important is the income of the end user in this particular market? How do you feel about a consumer who has a $9,000 income? How do manufacturers deal with that? How do retailers deal with that?

Greenberg: One of the things that is happening now is that the banks are making credit plans available.

DeRado: Most of the people purchasing this equipment are amateur musicians. I understand there's a statistic around that says there are some 39 million amateur musicians out there as potential customers. These people are generally working a couple of nights, then not working for two months. They're not stable individuals as far as the finance people are concerned. That was our biggest problem in trying to get this [TEAC tie-in] through FinanceAmerica.

Testa: That's the major manufacturer problem. How big could the market be? How many people can afford a $2,500 gadget? Who cares about digital delay lines?

DeRado: I understand that there is a report to be made available by *Billboard* and done by Gallup that shows there's been a 25 percent increase in that 1977 number of 39 million. A 25 percent increase a year is a hell of an increase.

Testa: I don't think a twenty year old goes out and says, "O yeah, I'm going to play bars the rest of my life." There's a dream involved, and I think all this equipment comes in under that dream. If we have 50 million people in 1978, what do we have in dollars in this market? Gross dollars?

Schulman: That's one of the things that we hope Cameo can find out. Maybe I should say a word about this whole Cameo thing. Cameo stands for Creative Audio and Music Electronics Organization. It began with a few people, Vincent Testa included, interested in this market, trying to define this market, and beginning to promote it. It was organized following the recent AES show in Los Angeles. Most of the companies who are members of Cameo are from the audio segment of the industry, and we are now approaching the music segment of the industry to get everyone in one industry group. One important purpose of Cameo is to develop market statistics, psychographics, demographics. It's one of the things that the music people have been doing for years. They publish their statistics. It's not a big hangup for them, unlike

what you see in the audio industry where you don't have any reliable measurement. Music people have for years been publishing their statistics through fiduciaries and they share with each other. Cameo is going to attempt to do this for this creative industry and come to some numbers. At this time you can only guess, trying to look at those 50 million people.

Testa: I flew on a plane the other day with a manufacturer. We took out a pad and started writing *mixing board, mic,* etc. We added up what we projected companies to be doing. We came out to around 200 million and didn't include every aspect of the electronic MI industry—and an awful lot more that encompasses those fifty million people.

DeRado: I want to recall a statistic from my own experience, which is with TEAC. As you know, the audio market is some 51 percent 18-to-24 year olds, but the purchaser of the TEAC 3340 skewed that statistic down close to 18-20, and I'm sure you'll find this also at the retail level.

Ford: I'd like to emphasize that 99 out of 100 of my customers are musicians. One out of a hundred would come out of the hi-fi market. You would be surprised at the type of customer who walks in. He walks in without shoes and with hair down to here. He might come in four times and the fifth time he comes in he pulls out a string of $100 bills. That's the way he buys.

Zimet: There's also a growing commercial or industrial segment in the creative market—small agencies, industrial firms, government agencies. There is this big industrial market for multi-track or creative audio that is financially sound, forgetting other people who are financially sound but may not appear to be.

Greenberg: I think we're making a mistake if we try to define a market as musicians only. I think that's the market we're hitting now, rather than the potential market. L.A., for instance, has a tremendous number of broadcasting engineering schools, but there is no job potential. These people are coming out and finding jobs elsewhere, but they're involved in the equipment, so they're buying it for their own pleasure. Schools are also very big.

DeRado: L.A. has seen a tremendous expansion in small production facilities. Also, the larger facilities are increasing their capabilities. The market seems to be leaping there.

Testa: As much as I believe it's an 80 percent or a 90 percent musicians' market, I think there's a creative audio guy who does not play an instrument, but who wants to open a garage studio, wants to have a little production studio. He may be using the musical talents of others and using his own creativity technically.

Ford: I agree with that. I know in our business the rock 'n' rollers walk in, whereas we have to go out and get the commercial and industrial people.

Schulman: Larry Blakely [of dbx] showed me some interesting statistics. The number of recording studios which existed in San Francisco went up from around 30 to something over 200 in the period of one year. That doesn't include garage operations, just people listed in the yellow pages as recording studios.

Testa: Let's address ourselves to the show that's across the street. There are manufacturers at that show who are introducing what they call professional products through a hi-fi dealer network. Do you see any problems with that?

Greenberg: Not at all. The dealer himself now must decide where he wants to be.

Testa: If a dealer is a hi-fi dealer considering taking on semi-pro products, should he put on a new sales force, should he try to educate his current sales force?

Greenberg: But hi-fi people by definition have done something to train themselves at the technical end of it. Therefore, we can pick out of our stores at least 10 to 20 people who can immediately go into and be responsible for it.

Ford: There's one thing that I would not overlook. You take a lot of money from a customer, and the people who are just beginning don't have the slightest idea what's going on in this area. There's a great amount of training that needs to be done. I think the salesmen really need to be trained. In fact, I'll tell you a problem. Look at all the mixing consoles available; they're all basically the same. Yet, I have ten years of studio experience, and I could walk up to a big console and I'd look like a fool for 15 minutes until I found out what this system did. With all the model changes and all the differences in consoles, you really have to do a lot of studying to keep up with what is going on. In fact, it's very difficult to even evaluate which products you ought to handle.

Zimet: I firmly believe that the retail dealer is the first line of defense in keeping an irate customer away from a manufacturer. There aren't enough manufacturers who realize that the retail customer may buy a package that consists of eight or nine products from different manufacturers, and it's the retail dealer who has to explain the interface, who has to read the logic in terms of the labeling, the nomenclature used—since there is no common nomenclature. Now all of this is confusing to the customer. Some of it is not clearly defined in terms of whether it's a high impedance or a high level. It's our job and we wind up with the responsibility. Because the customer buys it directly from us, we have to defend that product. Either it doesn't work out of the box or it doesn't do all the things the customer expects. When you get into bigger and more expensive and more complex equipment, the equipment could be working perfectly, but the customer doesn't realize the limitations. He was told this was the ultimate and he bought it and he doesn't get the ultimate out of it. These are the things that more manufacturers have to talk to more dealers about in terms of understanding the problems that the dealer has on the floor in selling a host of equipment.

Ford: I come from the recording music industry, so I've been in studio recording on both sides of the window. One thing I've found is to always encourage the customer just starting out to let *us* set up even a small multitrack. Of course, the price goes up if you do that. If the customer wants a lower price, he goes home and sets it up himself. You find that he spends all his time trying to plug in the wires, trying to make it work, and he ends up not making any music. So, one of our sales pitches is: Let us hook it up so you can spend your time and energy making music. There are too many of these home recording sessions where the guy gets new equipment and takes it home. Five hours later he is finally getting it working, but the band is tired and everybody is splitting; everybody is discouraged. I think if we want to perpetuate our market, we have to be careful about handling these customers right and getting the system to work.

Testa: If a dealer wants to come into this market, then, he should have a somewhat educated sales staff; he should have a responsibility to the consumer; and an ability to install and

troubleshoot. What are the actual requirements for a current hi-fi dealer to become a dealer of semi-pro equipment?

Greenberg: He has to set up demonstration facilities. They have to be so setup that he doesn't have to run around trying to set up one thing against the other. That confuses the customer. He'll simply walk out. You should have systems set up—a $3,000 system, perhaps a $4,000, and options—all plugged in and ready for demo.

We just made a decision that we will take one store and start it as a boutique, allowing other stores to bring up customers. We'll have two people in our commercial department manning this situation. They're working on salary—so they won't sell the customer just anything. We'll experiment with it. If we're making our net profit, we'll go on. We must experiment with it at this stage. The retailer should boutique.

DeRado: There's more than the financial and facilities commitment. There is a psychological commitment that is so much more involved when selling this product compared with an audio product. The customer is not sure of what he wants. You have to tell him what he wants, and you're going to be involved. That involvement aspect is so damned important and this is where many of the failures come, because when they see the amount of involvement it takes they kind of pull away from it and it dies.

Testa: Can a hi-fi rep network serve this new market?

DeRado: I would say I would't want to put an audio rep on; I would look for specialists, and that's what we did at TEAC. We actually took the audio reps and made them semi-pro reps, but we did an intensive training program. Even today there's a great deal to be done, so it's better to find someone who's expert at it.

Schulman: That's one thing that's come out here. It's knowledge—whether marketing or product knowledge. Cameo is trying to bridge the gap, whether it's the knowledge of the consumer or the retail salesman. If manufacturers can get together to impart this knowledge and have product and consumer education programs, that should go a long way toward bringing this industry along.


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Artist Endorsements: Stacked Deck or Ace in the Hole?

By Judith Morrison Lipton

Superstar struts his stuff with the X-Brand amps and the Magic-Name guitar, and the next day hordes of concertgoers, cash in hand, descend on Retail Charlie demanding X-Brand and Magic-Name for their very own selves.

Or: The full page ad breaks in National Magazine with Superstar, a balloon over his head, declaiming the merits of Magic-Name. The next week Retail Charlie is flush out of instruments, back ordered for the next two years.

Is this a day in the life? Or just the aim of the artist endorsement carried to the ultimate impossible dream?

Artist endorsements. Do Superstar's claims actually help sales at the retail level? Or is his choice of gear—or claim of his choice of gear—irrelevant to the nitty gritty of retail sales? A magical mystery tour of interviews with both manufacturers and retailers elicited a bevy of attitudes.

So much depends on the scenario: the type of endorsement itself, the artist himself, the promotional program, the dealer support, and most importantly, the dealer's attitude toward that endorsement.

When is an endorsement an endorsement? The word means approval, and approvals can be highly verbalized and/or visual or low-key and subtle.

The permutations are endless. At its simplest level an endorsement is the publicly exhibited approval by a recognizable personality of a particular product. It may be as subtle as an amp sitting innocently on a concert stage quietly proclaiming the manufacturer's name. Or as complicated as an agreement contracted in legalese involving product promotion and artist input into development of that product. It can be pay for hire, appearances in advertising ranging from TV gigs to black and white pages. Or it can merely be a credit on a record album.

HOW DOES IT WORK?

A straight money operation—endorsement for pay—is possible, although no manufacturers *espouse* that arrangement, and certainly no retailers seem to feel that is any kind of help to sales. Or the endorsement can be an agreement on a combination of promotion and input into research and development. In this situation, most companies prefer to find an artist buying their equipment before approaching him for a formal endorsement. Companies also, of course, solicit artist interest in their equipment.

Free equipment, although it does happen, is not bruited about, and is not considered by anyone as valid terms for an endorsement. Service is another story, however. Free service to professional groups is provided by several manufacturers in several guises. Arp provides their brass "Star Card" to 50 artists on a two-year service agreement. DiMarzio services their equipment for their endorsers, and aids the artists with other services at cost.

Endorsement programs can include appearances by artists at retail outlets, accompanied by attendant ballyhoo.

Or they can entail a signature piece of equipment—instruments named after the artist, entailing in turn a royalty fee.

SO WHAT'S WRONG WITH THAT?

Talk to some retailers and you'll hear about plenty being wrong with endorsements. The criticisms of many retailers can be coalesced into general statements, with some procedures heavily criticized:

Modification. Turn the cabinet around and you'll find the insides changed. No big star is going to be playing a cheap guitar That puts the credibly endorsed product out of reach of the average consumer, and lessens the credibility of the endorsed product that is modified.

Too many pieces spoil the broth. A celebrity hawking products with his hands, his feet, his mouth and whatever is a cliche devoutly to be unwished. But it happens. And it turns off the sophisticated consumer, the sophisticated dealer, but more importantly, the sophisticated salesman who does not take that artist's endorsement seriously since his name is bandied about so heavily. It doesn't seem to matter if the products are noncompetitive, it's the repetition of the name that seems to turn the salesman off to all products attached to that name.

Changing Partners. An endorser who frequently changes his endorsed product damages the credibility not only of the product, but of the salesman who may want to use that artist's name in his pitch. Superstar's proclaiming X-Brand the very best means nothing if Brand Y was the best last week.

The manufacturer competes with the retailer. The selling of equipment directly to endorsers no doubt bypasses the retailer. And most endorsement programs, although not all of them, seem to use this procedure. Although manufacturers counteract this criticism by pointing out that a loss of one sale by a retailer to an endorser brings in umpteen other sales induced by that endorsement, retailers dealing with professional musicians are highly critical of the practice.

Silly talk. The text of an ad is sometimes seen by the retailer as lessening the prestige of an artist, and therefore negating the effect of an ad. Testimonials written by copywriters are sometimes too simplistic for an accom-

plished artist to ever have said.

Retail appearances by a star are too costly and don't bring in the buyers. A fee of $500 for a two-hour appearance by Superstar may seem like a steal, but there are attendant costs in promotion of that appearance, and the wrong kind of promotion can bring in groupies rather than purchasers. Ibanez, for instance, will split the costs of personal appearances with the retailer, with the proportional split based on merchandise purchased.

Dealers—and some manufacturers—also criticize the ability for an artist to necessarily sell merchandise. A great musician may not be a verbal communicator. Retail-endorser programs have not apparently reached a level of sophistication to make them generally worthwhile in the eyes of the retailer.

It's just for the money. Rumors of high dollars paid for endorsements, testimonials, signature instruments and the like abound. The cynics among retailers therefore frequently pass off endorsements and the attached artists as just so much hype. Manufacturers won't publicize the arrangements they have with various artists (and those arrangements differ within even one company depending on the artist), so the rumor mill goes on and the stand off stands pat.

WHEN DOES IT WORK?

It works, according to almost unanimous agreement, best and most effectively when a product is simply seen on stage or on a record credit.

It works when the dealer knows the music. It's all in *the rap.* The salesman can include in his discussion with a customer the name of an artist using the equipment, and he can demonstrate the sound heard on a record. As Bob Hoffman of ARP says, "You can never sell something solely on the basis of who uses it. It's part of the whole rap." MXR's Ron Wilkerson has stated in SOUND ARTS that the sales of phase shifters following the success of the Doobie Brothers' "Long Train Runnin" was "staggering." This successful kind of endorsement—formal or otherwise—depends on the conscientiousness of and education and research of a dealer. Which brings us to:

It works when there is dealer attention to manufacturer support for the endorsement. It does no good unless the dealer knows an artist issuing the products he carries. Companies such as Arp and Unicord and JBL release lists of artists who use their products professionally. But, as Bob Harrison of Unicord says, dealers often don't read this information—understandably since they receive gobs of mail; but this informational loss can lead to a loss of a sale.

It works when there is strong dealer support. Posters can help. But that's highly selective. Paul Ash, of Sam Ash stores, is strongly in favor of artist endorsements. However, not too many of the posters get used in his stores simply because of lack of wall space. But other dealers use them—if they are "classy," and sometimes only if they are devoid of obvious advertising.

T-shirts can work. Strings and Things of Memphis reports that its T-shirt featuring a Les Paul guitar is highly successful—but that's a multifold endorsement. First of all, it is a dealer promotion solely; second of all it features probably the most successful musical instrument endorsement of all time, the Les Paul guitar, and for those involved in esoterica, it features the Sunburst, a genuinely well-loved guitar. But it gets Strings and Things publicized far and wide. It works for the retailer.

The T-shirt promotion of JBL is dealer-involved. Groups using JBL equipment on tour are featured, with these endorsers found through JBL sound contractors. Distributed at cost to dealers for their own promotions, the T-shirts are very successful, according to JBL. There's a triple whammy here— the name of the artist, the name of the product, and promotion for the dealer.

It works when there are time limits on the endorsement. Manufacturers entering into formal endorsement relationships sign, on the average, two-year contracts, assuring that the artist will not appear in an ad for a competing product--although few artists of endorsement quality will agree to an exclusive contract on the instruments they play. An ad for an endorsed product followed by the appearance on stage with another product can lead to embarrassment for the manufacturer and confusion for the consumer—and hence the dealer.

It works when heavy exposure is provided by the manufacturer. Some dealers report terrific response from the Road amplifiers seen on TV's Midnight Special. The customer doesn't generally know that a specific group may not necessarily use the Roads off camera. The fact that they are on camera is the salient feature. Road of course makes videotapes of Midnight Special acts available for promotion by dealers.

The exposure has to be heavy. An endorsement can't bring a customer into a store unless that endorsement has been seen. Yet there has to be a solid rationality to that exposure. Phil Stogel, who initiated the Pioneer endorsement program, and whose ad agency now handles JVC, TDK and dbx among others, believes that the association with the artist "has to be of the finest quality." Although Stogel doesn't believe in TV exposure or retail appearances, he does believe in localized radio spots—preferably using coop funds.

This hampers some smaller manufacturers who may want to get into an endorsement program but don't have the big bucks to advertise that endorsement. However, smaller companies with good dealer support can get the word across to the salesman who can use it in selling.

It works when the artist is big enough. All manufacturers with endorsement programs report that they get requests by "Grade B" artists for endorsement agreements. Grade B is turned down. It is of no use for a dealer to explain to a customer that Superstar's kid brother uses a product. It's Superstar himself who is the draw.

However, several retailers suggest the relative power of a *local* endorsement by regional respected musicians well known in the community. There is a strong musical and personal identification at work here. And some retailers report that they have used their own informal sort of regional endorsement program, carried by word-of-mouth, since there is no big money or major manufacturer support available.

It works when there is clever management at both the artistic and manufacturing level. Many performers sell their endorsement rights to management companies. With bad management that endorsement can be overplayed, overdone, and lead to loss of credibility for the artist, the manufacturer, and in turn the loss of endorsement opportunities themselves.

IS IT NECESSARY?

Can you have music without musicians? There's a razzle dazzle life out there hooked on to the serious creative work of making music. To infer that sales can be unhooked from the dream is limiting and unrealistic. The top performers are the top performers because of what they are doing with products. And the semi-professional or beginning professional is hooked by the glamour as much as the business of making music. There's a Studio 54 mentality abroad in the land, but it can't be divorced from serious technique and just pure talent.

It isn't just instrument oriented. The Allman Brothers or Elton John may be good in their field; their judgment on high fidelity may be less correct than their judgment of music. But they have been indelibly identified with Pioneer. Ella Fitzgerald may not be a judge of tape specs. But she is indelibly identified with Memorex. Ray Charles with 3M. And that allows a double identification—artist with product. Advertising is not necessarily a rational exercise. There's a subliminal motivation attached to all purchases which can be helped by an upbeat orientation.

FIGHTING CYNICISM

There's a cynical streak running through retail establishments. Work for hire, over-celebritizing of product, rumors of big money deals tend to deflate the importance of endorsements in the minds of dealers. With no help from the retailer, the sell-through becomes solely the burden of the manufacturer, and is sometimes fighting against the feeling of the retailer. Endorsement programs can wind up treading a fine line between toothpaste and reality.

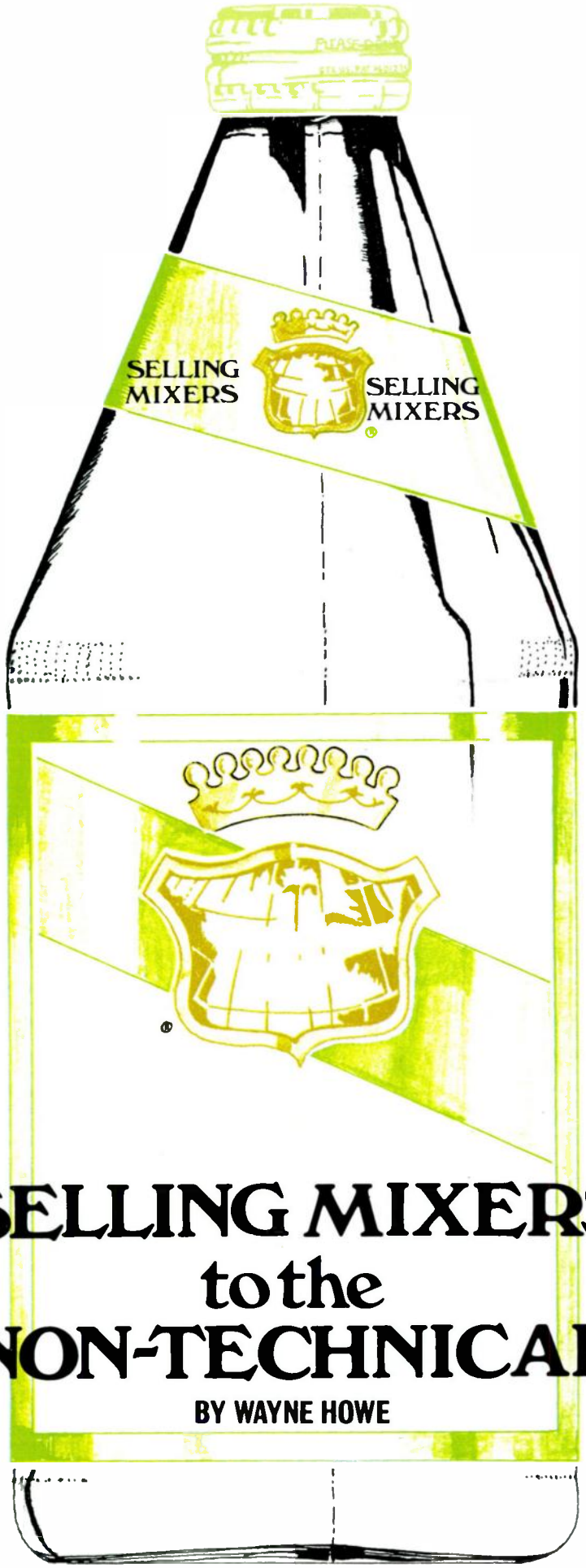
Credibility is the word. A credible program with credible endorsers, a low key statement by a respected performer can bring the customer in and relate to the salesman. It's the hype that hurts.

There are no hard figures to indicate the effect or lack of effect of artist endorsements. Most dealers at least feel there is a "'ripple effect" in consumer oriented artist connections with the gear. Manufacturers report that spontaneous comments on artists are written on returned warranty cards. And endorsement programs—even without heavy advertising—can help the smaller manufacturers and in turn the retailer carrying that line.

The customer may not walk into the store brandishing a four color ad ripped out of a magazine, but no dealer we've spoken to thinks an artist endorsement makes *no* impact at all.

The artist endorsement can't be viewed as the total sell-through. It is one factor in a total marketing and advertising philosophy and has to be treated as such. It helps the dealer in attaching glamour and a reminder of the sounds possible from what are essentially inanimate non-magical non-spiritual products—the merchandise in a store.

The artist endorsement is not necessarily stacked against the dealer or the consumer, nor is it a predictable ace in the hole. But developed correctly, it certainly isn't 52-pickup. The element of chance can be checked, made rational and used for successful sales.



SELLING MIXERS to the NON-TECHNICAL

BY WAYNE HOWE

Let's face it. These days we're living in a tremendously complex technological world. Scientists and engineers are constantly developing more and more complicated equipment to be marketed to consumers. However, for these technological masterpieces to be sold, customers need to understand what the equipment will do for them. A customer who doesn't understand what a piece of equipment is or how it will benefit him will rarely buy it.

So—to sell technological equipment to the customer we must explain the equipment in terms that the customer will understand; we must take something complicated and make it simple.

I'm not going to teach you here what all the features are on a mixer, how they work, what they do, etc. Other articles will explain mixers to you. The purpose of this article is to talk about how to teach customers about mixers in simple and beneficial terms so that the customer will understand why he should buy one.

We all know that explaining things simply is important because at one time or another we've all been customers shopping for something technical that we didn't know much about. Most of us have wanted to buy a camera, an outboard motor, a car, or something technical that we didn't fully understand. While we were shopping, most of us also found that we didn't have the time or the motivation to find out what real time exposure, a variable pitch prop, a stroked and bored engine, or any other specialized technical jargon was. All we wanted to know was what we needed for our purpose and why it was necessary.

The same principle applies to audio selling. Most customers don't care what the center point dB drop is on the pan pot, or where unity gain is on the faders. Most customers only want to know what they need for their application, why they need it, and assurance that it will sound good.

For instance, I recently overheard a salesman explaining a mixer to a customer. When the salesman got to the equalization section, he began talking about frequency response, proceeded logically into Kilohertz, drew squiggly response diagrams on paper, talked about the range of human hearing at different volume levels for high and low frequencies, and ended up with an explanation of Fletcher-Munson curves. The salesman did a beautifully

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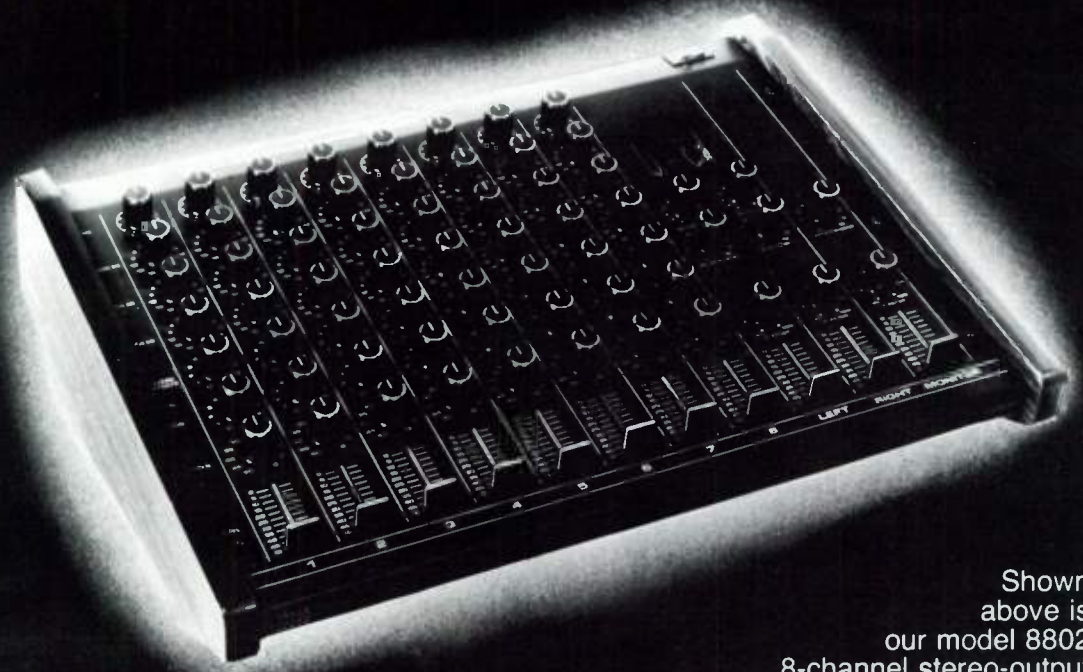

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CIRCLE 92 ON READER SERVICE CARD

sophisticated job of explaining equalization. Unfortunately, the customer didn't understand a word he said. The customer closed his gaping jaw, mumbled a few words under his breath about how he now understood, and left the store immediately.

I explained to the surprised salesman that he should forget all about Hertz and Fletcher-Munson when explaining equalization. I told him that the best way to explain EQ to a customer was to turn up the treble and say, "When you turn this treble control, you can make the cymbals louder or softer. When you turn this midrange control you can make the vocals louder or softer. When you turn this bass control you can make the bass drum or bass guitar louder or softer." In other words, explain the features in terms of music that the customer can understand.

Several weeks later when I saw the salesman again, he told me that he was trying what I had suggested and was amazed at the results. His customers actually understood what he was talking about and were buying mixers instead of running for the door.

This is not to discourage salespeople from knowing technically how the products work. Our job is to *know* our products. But more importantly, we must be able to simply and clearly explain the technical concepts of the products to our customers. A customer who really understands why something is important to him will buy based on that understanding.

The important point to keep in mind is that we are not selling specs, features, technical talk, or mixers. People don't want specs. They want music. People don't need mixers. They need Music. People don't love technical talk. They love MUSIC! And they'll BUY MUSIC! All they have to know is—simply and clearly—how the specs, features, or products give them more enjoyable music.

As Roger Parker so wisely said, "We're selling music to confused people." Hopefully we can "unconfuse" them. Then we can just sell music to those unconfused people.

WORDS

Words are one of the basic problems in explaining complicated things simply. Unfortunately, since technical concepts include new words or new meanings for old words, technical explanations can lead to misunderstanding.

A good rule to remember is: *Don't go past a word the customer doesn't understand.* If you do, you're going to confuse him. If you confuse him, you're going to lose the sale.

For example, suppose you were explaining a mixer to someone who was ignorant about audio. You might point to the level controls and say, "Here are the faders on channel one and channel two." Of course, the uninformed customer would not have heard of faders or channels in this context before. He has heard of a channel of water a boat sails in, so he might imagine a channel of water fading away. This is obviously not the idea you want to convey, but it is the kind of idea the customer will get if you use words he doesn't understand. Ridiculous example? Yes. Ridiculous, but true.

Think of all the words we use in audio that are unique to audio or have meanings that the average customers don't know. Just the word mixer is confusing, not to mention board, faders, panpots, EQ, Hertz, monitors, sliders, outputs, cue feed, etc. Most of the technical words we use in audio are either unknown or have other meanings to the less knowledgeable of our customers.

So, explain new words simply. "These are the faders. They fade the volume up and down so the music gets louder or softer. These are channels. Each channel is an individual section that controls a particular instrument."

ANALOGIES

One of the best ways to explain something complicated is to use an analogy. Compare the audio concept to another concept that the customer already understands.

For example, suppose a customer asks what a mixer is. Something analogous to a mixer might be a soda fountain. Tell the customer to imagine that you have an old fashioned soda fountain and that each lever in the fountain controls how much soda comes out of each nozzle. If you are demonstrating a four-channel mixer you can have the customer imagine four levers controlling Coke syrup, carbonated water, uncarbonated water, and cherry syrup. Have your customer imagine that as you move each of the four levers you can control the amount of each liquid flowing from each nozzle at any instant. In this illustration you could make any kind of cherry Coke imaginable. You could mix lots of syrup with lots of fizz and no cherry, watery Coke with no fizz and lots of cherry, etc. Then tell the customer that an audio mixer works the same way except that you can control the amount of music from each instrument instead of the amount of liquid. Now point out the volume controls on the mixer and have the customer turn up and down various amounts of liquid or music, whichever he can best visualize.

At first, analogies like this may seem ridiculous to you. However, customers find these analogies very easy to follow because they can visualize flowing water easily but usually can't visualize flowing audio waves or electrical current.

Another important point to remember about explaining things simply is that you can't trust the customer to tell you when he doesn't understand. Generally a customer who has been around audio equipment and is relatively secure in his knowledge will ask questions if he's confused. However, customers who aren't knowledgeable usually have a tendency not to ask questions for fear of looking naive or stupid. These people feel that if they let the salesman know their ignorance, the salesman may take advantage of them and sell them something they don't want or need. When asked if they understand, these people will generally nod their heads and say "yes" although they haven't the vaguest idea of what the salesman is talking about. A perfect example of this in my own experience is when I'm shopping for a car. While the salesman talks about McPherson-strut suspension, I just smile like a dummy, nod my head up and down, and try to look like I know what he's talking about. I'm not about to show the salesman my stupidity and neither is your customer.

HOW TO EXPLAIN — THE WRONG WAY

Before writing this article I went to some music stores to play *shopping for mixers.* The first store I went to had a salesman who explained *everything* in detail. He went on and on about the features in mixer X and the pots in mixer Y. the quality of mixer Z1 and deficiencies of mixer Z2, etc. By the end of our conversation he had covered so many subjects that I was totally confused. I hate to imagine how lost a

poor customer would be in the same situation I was in.

This experience points out one of the main lessons most audio salesmen need to learn, which is: DON'T BE A GENIUS—LEARN TO PLAY DUMB. In my own case, my ego leads me to want to explain everything I know to the poor customer. Don't! You'll waste your time, confuse the customer, and lose the sale. Obviously, if a customer asks for a technical explanation you should give him one. If he doesn't ask—don't volunteer.

Another store I went to had a salesman that only talked about price. His rap went something like this: "This mixer is $____ and this one is $____. We can put you in mixer X1 for $____. Or we can fix you up with a Z2 for only $____. You can combine XZ and WY for $____ or XY and WZ for $____" and on and on. Even if I had been interested only in price, I couldn't have remembered more than the first two prices. Obviously the "price only" technique is also ineffective. Besides not giving the customer any information about what would satisfy his needs, this kind of salesman makes the customer feel like a walking dollar sign. The customer gets the feeling that the only thing the salesman is interested in is the customer's wallet. To most people this is a turnoff.

THE RIGHT WAY

All right, what *do* you do to sell the customer a mixer?

1. Explain things simply using analogies and examples.

2. Ask the customer questions to find out if he understands what you've said. For example, right after you've explained panning, say, "Okay, we've got the drums in the middle, the guitar on the left channel, and the vocals on the right channel. Now pan the guitar from left to right." If the customer can do it, he understands. If he can't, go back to a point *before* the point where you lost him.

3. Let the customer *do* it. Make sure the customer puts his own two hands on the mixer and works it himself. If he doesn't, he's not going to understand it. To show how important this is, imagine that I was trying to teach you how to operate a cement truck. I could talk to you for five hours about how to operate it, but until I let you sit down at the control for five minutes and do it yourself, you would never really learn how to run it. The same principle applies to teaching mixers to a customer. Let him *do* it.

4. Connect the mixer to a multitrack tape recorder so the customer can *hear* what he's mixing. Make three or four tapes on the multitrack putting the same instruments on the same channels of the tape in each song. *Label* all channels of the mixer with the instrument used on that channel. It's extremely frustrating when a salesman rattles off the instruments on each channel and expects the customer to keep them all straight. Remember, the customer likes music, not mixers, and using the mixer to make music will really turn him on. Once he's turned on, don't let him turn off just because he can't remember which instrument is on each channel.

5. Have the tape recorder outputs connected to different mixers so that you can switch between mixers. Then let the customer mix the same song on different mixers. This rapidly lets the

customer decide which unit he likes best. This setup also enables the customer to sell himself up into larger and more versatile systems. Not allowing the customer to actually use the mixer in a realistic setup can be compared to a car salesman trying to sell a car without allowing a test drive.

QUALIFYING THE CUSTOMER

In order to discuss qualifying a customer, let's take a look at a typical customer. A customer always has a need to fulfill or a problem to solve. As a salesman, you have a solution to his problem in the form of a product.

The old example of the customer who is buying a drill applies here. The customer does not really want to buy a drill. In his own mind the customer is buying a hole. He needs a hole. He only buys the drill to get the hole that he knows he wants.

The same thing is true in audio. Customers don't want mixers, they want music. A customer who has several musical sources wants a beautiful blend of music. The only reason he buys a mixer is to get that beautiful blend of music.

Okay, then, how do you find out if your customer needs a mixer? Simple. Ask him. However, don't ask him if he wants a mixer, ask him if he has a problem. If he doesn't have a problem, you can't solve it by selling him a mixer of any sort.

FINDING THE PROBLEM— ASK, LISTEN, AND SOLVE

In order to find the problem, *ask* about the *customer.* Everyone is interested in himself, so getting him to talk about himself is usually easy. Ask the customer what kind of music he's into, how many people are in his group, what kind of equipment he already has, whether he's interested in live or recorded music, etc. Show him you're interested in *him.*

Then *listen* to what he says. Most customers will come right out and tell you where they're at, what kind of equipment they have, and what they need. If a customer doesn't come right out and tell you what he needs, keep asking. Usually his problem is sitting right in the middle of all the things he's telling you.

If you've done your *asking* and *listening* correctly, it will be obvious if the customer needs a mixer. For example, the customer might say, "We just got a group together and we're all singing through a guitar amp. Unfortunately the bass player sings harmony louder than the lead singer." This customer has a problem.

Once you feel you have a good grip on what the customer's problem is, *solve* his problem by advocating a solution. For instance, "Based on what you've told me, it sounds like you need a mixer."

HOW TO SELL— SOLUTION, ADVANTAGE, BENEFIT

When you advocate a *solution* to a problem, you must explain what the *solution* is. In this case the solution is the mixer, so explain what a mixer is. For instance, "A mixer is a device that you can use to vary the volume of each musical source independently."

Now explain the *advantages* of the mixer. The advantage is how the mixer solves the problem. For example, "The advantage of a mixer is that now you can make the bass player's harmonies softer and you can make their lead singer's melodies louder.

After the advantage, explain the *benefit.* "Since you can make the bass player softer and the lead singer louder, now the music will sound better than ever." Remember, *always* relate the benefit to *music* since the customer is buying music.

SELLING UP

The best way to "sell up" is to compare the products, benefit by benefit. This way the customer can determine if the differences are significant to him and worth the extra money. Much "selling up" can be done based on what the customer's needs are in the future although he doesn't need the extra capabilities now.

CLOSING

The closing of the sale is generally based on whether the customer feels confident about three things: Will the mixer solve the overall problem? Is this particular mixer the best solution to the problem? Will this particular mixer continue to be the best solution to the problem in the future?

To answer these three questions, first demonstrate how the customer can use the mixer to turn down the bass player's microphone and turn up the lead singer's mic. This shows the customer that the mixer solves his problem. Now find out how many inputs he needs, whether he wants reverb, how much money he wants to spend, etc. Then steer him to the mixer that is best suited to his needs. Ask him what his future plans are for the group. Are they going to travel? Will they need special effects? Will they be needing more inputs? Then show him how this particular mixer can solve his future problems.

Finally, there are many ways to close a sale. My own experience is that most people don't want to make a decision because they're afraid they might make a mistake they will regret later. I prefer tohandle this indecision by assuming that the customer has already decided to buy.

An example of this might be, "Well, Mr. _____, is there anything else you want on this mixer?"

"No."

"All right, I'll write it up."

With this approach the customer lets you know if he wants anything more by answering "Yes." If he does, sell it to him. If he answers "No," he's already bypassed the difficulty of making the decision.

This approach works well for the customer who has already decided he wants the mixer or for the customer who is on the fence and can't decide. The customer who is definitely not going to buy will let you know immediately that he doesn't want you to "write it up."

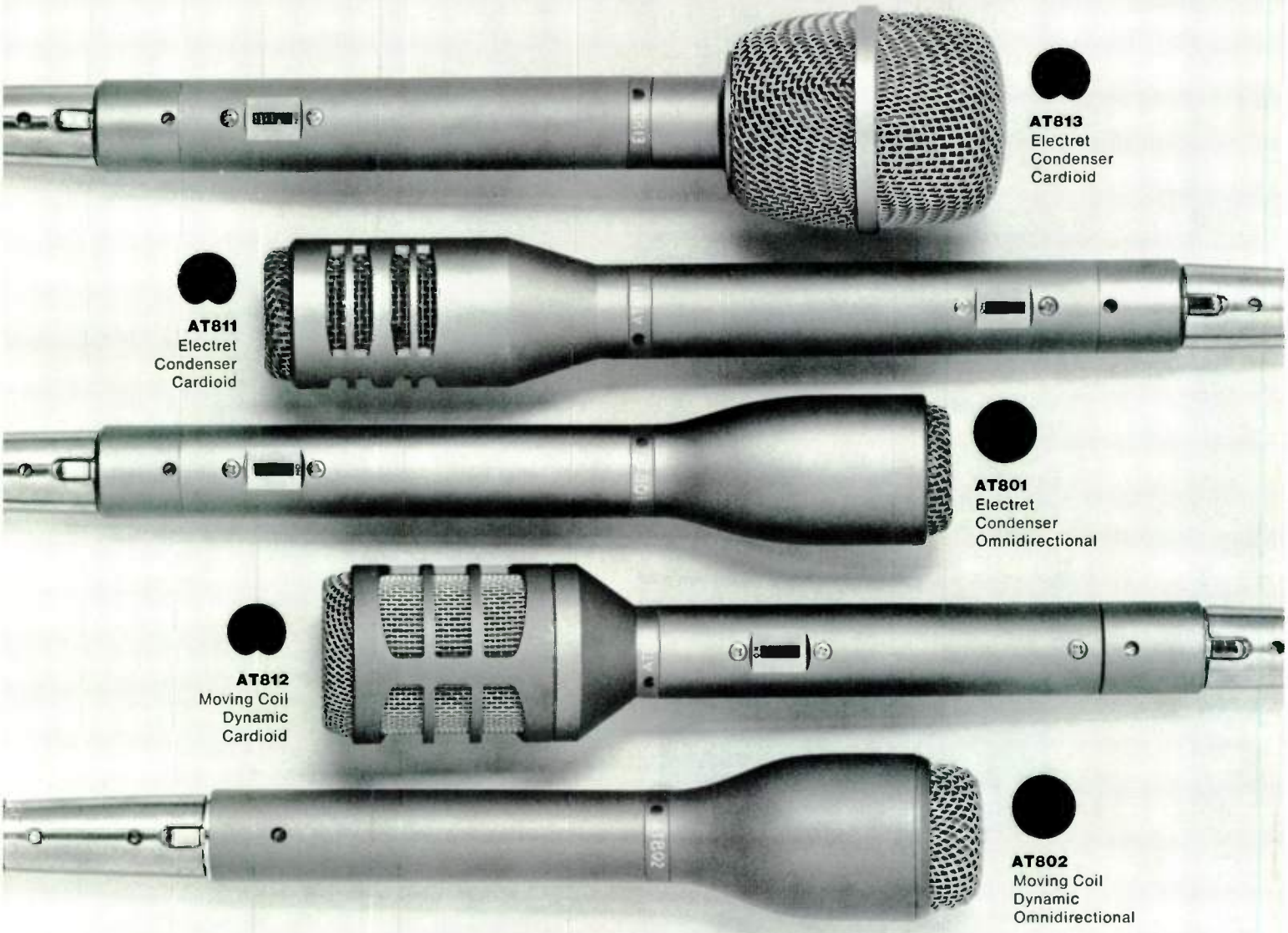
The important point about closing is to *always* ask for the order. Even if you feel stupid and the words don't come out right, it's better to look stupid and sell the mixer than to look cool and lose the sale.

SUMMARY

Remember what it was like when you were first learning something technical? Total confusion! Well, most customers feel the same way. So take it easy on them. Keep it simple. Play dumb if you have to, ask for the sale, and most important: Sell MUSIC!

Wayne Howe has a masters degree in electronics and music, and has been a synthesizer instructor, a recording engineer and, for the past three years, a manufacturer's representative.

Audio-Technica introduces five new microphones... and a pleasant surprise.



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Take a close look at these new Audio-Technica microphones. Three electret condensers and two dynamics. Plus two clip-on miniature electrets (not shown). All are superbly finished. Carefully thought out in every detail. With the right "heft" and feel. Professional A3M Switchcraft output connectors, of course.

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Now for the surprise. The price. Both omnis are nationally advertised at just $60, for either dynamic or electret condenser element. The two basic cardioids are just $80, while the AT813 electret condenser with integral windscreen is pegged at $95. All complete with full one-year warranty.

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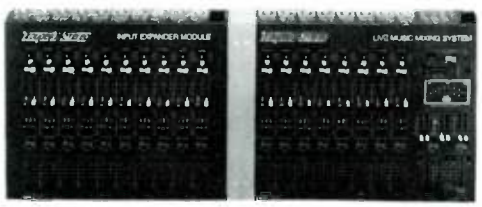
CIRCLE 87 ON READER SERVICE CARD

The SOUND SH

The trade shows this year were so full of new products that it will probably take several installments of SOUND SHOPPE to adequately cover all the things worth mentioning. I am interested in knowing how some of the other dealers felt about the shows this year, so if you find anything interesting, drop me a postcard c/o this publication, and I'll try to uncover the product for those who might have overlooked it. Also, any general observations about the market would be welcomed, and I'm sure those dealers who were unable to attend the show would appreciate any insights you may have into the products and market trends in the coming year. Now let's take a look at a few of the new goodies in the world of musical merchandise.

I spent some time at the NAMM show with Lawrence Jaffe, Vice-President of Marketing with **Uni-Sync**, the company that builds the Trouper Series Mixers, which have gone stereo as of this year. The new Trouper I Stereo has much the same features as the mono Trouper, which include: Low Z balanced input, High Z input and in/out jack on each



channel, as well as a pan pot for shifting the acoustical image from left to right, and an echo send pot for switching the echo from side to side. There will be two built-in spring reverbs to coincide with this and two sets of effects jacks, giving you two more pannable outputs in addition to your house outs. Other input features are 20 dB of mic attenuation, monitor and echo sends, three band graphic EQ solo switch and input level control.

Output features are: House left and right level controls and outputs, monitor level control and output; Echo send/receive jacks-left and right; stereo headphone level controls and jack; two solid state LED VU meters, providing average and peak reading information on individual inputs and outputs through the solo system; left and right echo send masters to two built-in spring reverbs, with echo receives house-left and right, and monitor. Additionally, high and low cut filters are located on the House and Monitors.

The Trouper I Stereo Output Control Module has a suggested pro net of $898.00 and the expander $838.

Another thing I found interesting was Uni-Sync's monitor mixer, the Trouper I Monitor. This board allows you to construct four independent monitor mixes for the artist on stage. This unit represents a much needed improvement over existing monitor mixers. Being able to change monitor mixes quickly is this unit's forte, and I think it is great, as I'm sure many groups who have been struggling to hear each other on stage will agree. The Trouper I Monitor is an eight-input unit (expandable to 20) with three-band graphic EQ, input attenuation of up to −30 dB, solid state LED VU meters and many more good features. The bottom panel is easily removable for instant access to the PC board and plug-in service components, which makes immediate repairs a lot easier.

CIRCLE 10 ON READER SERVICE CARD

There were a few low-end items which caught my eye at NAMM, but none of them were quite as charming as **Frap**'s new guitar transducer, IT. Before I tell you what IT is, let me say that I have long respected Frap as the best of the peizoelectric pickups, and my pro customers, like the Amazing Rhythm Aces, were more than satisfied with the performance of the Frap. Now Frap has intro-

DOPPE

By Charlie Lawing

duced their latest innovation, IT, an "integrated transducer," which has the preamp built into the pickup head. This remarkable piece of engineering boasts frequency response to 50,000 Hz, no cable noise, no signal loss in cable, low output impedance—drives 40 feet of cable, fast transient response, and 1,500 hour battery life, and is recommended not only for acoustic instruments but for extending the range of electric guitars as well. And IT has the lowest cost of any complete pickup system at only $59.95.

CIRCLE 11 ON READER SERVICE CARD

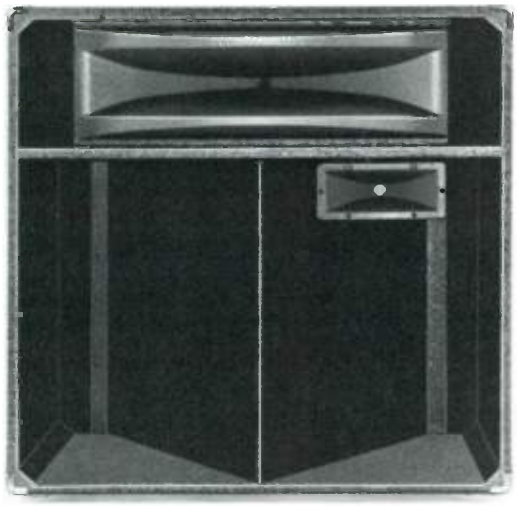
The **Yamaha** line is one of the most impressive arsenals of equipment I've ever seen—from guitar and basses to amplifiers and mixing consoles; they can do it all. This year they even introduced a new drum line, which my drum shop manager, Dave Patrick, tells me is incredible. I looked at some of their new amps, among them the new integrated power amplifier, the Model A-I, which Yamaha says is "disc-mode oriented." Their idea behind this concept was that there are a great many audiophiles whose primary use of component equipment deals with disc playback, and in order to achieve the highest possible performance levels, the simplest, most direct amplifier circuitry is regarded as the best, because it has the least components and signal processing circuits that can detract from the purity and quality of the signal. The A-I amplifier, which incorporates a built-in advanced head amplifier for moving coil cartridges, is referred to as "disc mode oriented." This description is appropriate because it incorporates a switch that controls the circuitry in such a way that when it is turned on, the phono cartridge is virtually electrically direct coupled to the output power amplifier. This unique direct access disc switch overrides all the secondary controls and achieves a circuit configuration which is as close to the "straight wire with gain" concept as advanced audio technology can accomplish. This amplifier also utilizes a direct current equalizer to achieve significant improvement in transient response circuitry.

In the A-I DC amplifier, the equalizer is direct coupled to the power amplifier via the disc switch. This circuit arrangement is made possible only because Yamaha developed a high gain power amplifier so that a gain of 41.5 dB is achieved by the power amplifier alone. As a result of the direct current power amplifier's 20 dB more gain than most other power amplifiers, the full rated wattage can be achieved with only 200 mv output from the preamp. Yamaha believes this construction is DC amplification in its purest form. The dual FET input used in the power amplifier, tone control and equalizer stages achieves exceptionally low distortion, 0.02% THD, and S/N

ratio of 82 dB measured from moving coil phono input to speaker out terminals and 98 dB from moving magnet phono input to speaker output terminals. However, Yamaha adds an extra benefit for the consumer in that performance specifications are only part of the advantages of the Yamaha product. That extra benefit is Tonality, which plays a very great part in determining the overall esthetic quality of the A-I amplifier.

CIRCLE 12 ON READER SERVICE CARD

The **Gollehon** speaker line was well-represented at NAMM with several models. (I have had good luck with the Gollehon Penetrater series as a lower-cost alternative to the other very popular tripod-mounted speaker system.) Newest in the line is the Gollehon 450SRL, a self-contained, all horn-loaded 3-way speaker system designed for the most critical applications of sound and keyboard reinforcement. A Gollehon 2115 15-inch woofer is front-loaded to a large folded horn for maximum efficiency from 90 to 800 Hz. The rear of the 2115 is coupled to a unique ducted-vent re-



flex design for low end efficiency below 90 Hz. The mid-range section uses a Gollehon 8110 radial horn driven by a 4660 2-inch driver. The high-frequency section incorporates a new Gollehon 4690 combination horn/driver, designed for high efficiency above 5 kHz. Both sections provide exceptionally wide horizontal dispersion virtually uniform with frequency. An incredibly high level of 106dB SPL (1 watt at 1 meter) is reached at 60 Hz and maintained within 3dB to 20 kHz. The low, mid, and high-frequency Gollehon drivers are built to withstand punishing power levels. The 400 SRL is superbly clean and accurate for electric keyboards, synthesizers, and the new synthesized percussion instruments. Other recommended applications include large night clubs, disco or outdoor sound reinforcement installations.

I recently used a pair of Gollehon's 350SRL cabinets for a synthesizer workshop session that we presented at a local auditorium (seating capacity 400) and was very impressed with their clarity and projection. I recommend them without reservation for keyboard and club sound systems.

CIRCLE 13 ON READER SERVICE CARD

Ross Musical Products has announced a new foot controlled distortion effects unit for the professional musician. The unit features a cast aluminum chassis with recessed tactile knobs, input impedance of 500 ohms and is designed to drive a high impedance load. It has 40 dB of available gain which results in a limiting threshold of 1.5 mV peak. The unit operates off a 9 volt battery or an external ac/dc adapter. Suggested list price is $49.95.

CIRCLE 17 ON READER SERVICE CARD

B.I.C./Avnet has entered the cassette deck market, having introduced the T1, T2 and T3 models, with suggested retail prices of $279.95, $329.95 and $499.95. All of the new cassette decks work at two speeds—1⅞ ips and 3¾ ips. The company claims dramatic improvements in frequency response, dynamic range, signal-to-noise and wow and flutter at the 3¾ ips speed. Containing "Broadband Electronics," the units feature a balanced bias

oscillator, additional bias trapping, constant current record drive and phase error prevention. The T3 is a two-speed, three-head dual capstan cassette deck with frequency response guaranteed at 25-19,000 Hz ±3dB at 1 ⅞ ips and 25-22,000 Hz ±3 dB at 3¾ ips. The model's dual capstan controlled tension transport incorporates primary and secondary capstans and pinch roller assemblies in a closed loop system. Four separate Dolby circuits are incorporated, allowing simultaneous encode and decode of left and right channel signals. The T2 and T1 are two-head units.

CIRCLE 14 ON READER SERVICE CARD

Another new Actilinear unit from Tandberg is the TD 20 A 10½ inch reel-to-reel deck, featuring a logic controlled 4-motor, solenoidless tape transport and front panel bias selector. The TD 20 A can be adjusted to handle the new metal particle recording tape. Operation is provided by four separate motors, eliminating the traditional mechanical power transmission and gear systems. The drive motor is a phase-locked brushless synchronous design with belt-drive flywheel and capstan. A separate motor is provided for the pinch roller and tape guides. PROM electronic brain speed regulation combines with TRIAC

controlled direct drive spooling motors. Separate power supplies are provided for operational functions and audio functions to prevent thermal stress in the electronic components. Suggested retail price is $1200.

CIRCLE 15 ON READER SERVICE CARD

A free product display rack which holds two dozen Sonic II Noise Filters will be furnished, on request, with orders for two dozen or more. Produced by the Norton Company, the Sonic

II has been used by gun enthusiasists for years, and is now recognized as an aid to retention of hearing of musicians. The filters weaken high-level impulsive or repetitive noise, which can damage hearing, through a "complex acoustical passageway." Normal sounds, rhythms and tones can pass through the filter, allowing the musician, reportedly, to "hear and feel the music to its fullest without ringing ears and the dangers of permanent hearing damage." The filters are constructed of soft silicone rubber and allow the ear canals to remain open to air circulation and pressure equalization. Sonic II Noise Filters retail for $5.95 and come with carrying cases and chains.

CIRCLE 16 ON READER SERVICE CARD

By John Parris Frantz

DEALER DOSSIER

Just Music, Inc. Chicago, Illinois

What would you think if you entered your local music retail store and were confronted with an indoor patio with tables, chairs, and vending machines? Unusual? Well that's what you would find at Just Music, a southwestern Chicago music shop.

"This arrangement follows closely with our founding philosophy of accommodating the customer," says vice-president and general manager Ken Breitzke. SOUND ARTS went to Chicago to talk with Breitzke and store manager Earl Rubin.

The initial impression one gets when entering this store is that of a miniature shopping center. The seven enclosed departments that make up this store are accessories, sound reinforcement, guitar and amps, drums, acoustic guitars, synthesizers, and used instruments. Each little "shop" will soon have a name at the entrance. For example, used instruments will be titled "Sanford and Son Corner."

This ten-year-old corporation, which has had several names and locations, was founded by Breitzke, President John Pichler and his mother Mari, the Secretary/Treasurer. Since its inception, Just Music has prided itself on accommodating the customer with innovative approaches to retailing.

Your sound reinforcement department is organized in an interesting manner. It reminds me of a home stereo store where at the push of a button a customer can sample a variety of combinations of receivers and speakers.

Rubin: Eventually that department will be controlled by a digital system. If you just press the numbers, of course they will light up; you can just program what mixer you want to go with what speaker.

Breitzke: With the diversification of this industry (We're getting into Teac—the big decks and things like that), we're going to use the digital system for the disco end of it, the recording end of it, and still cover the musical instrument end of it for the groups.

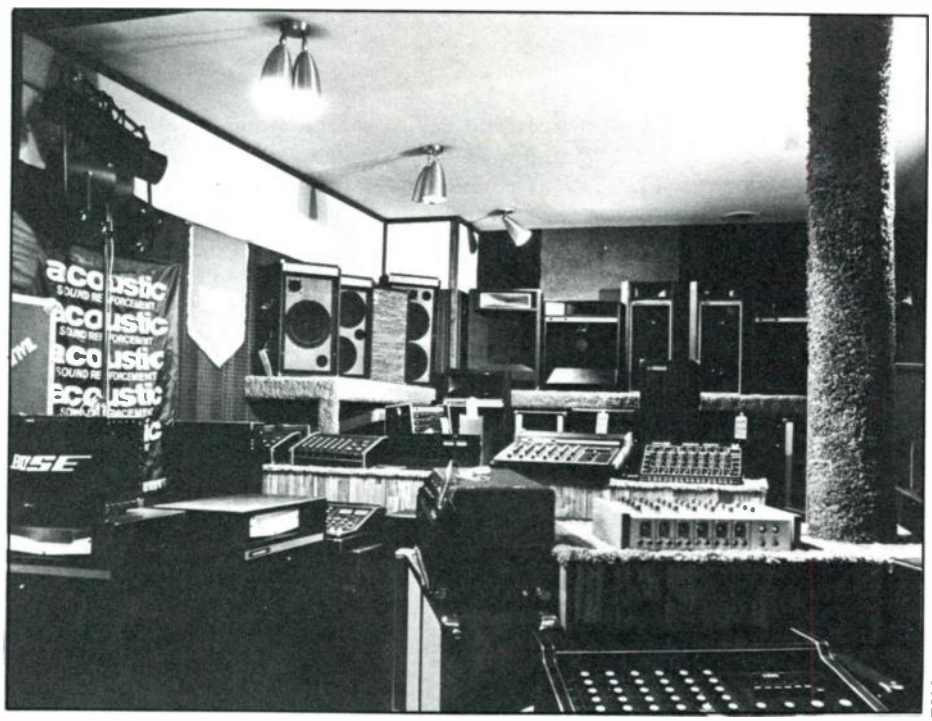
Rubin: At this point we're selling studios their power amplification and monitoring systems and the disco people are buying disco systems. We also sell a lot of systems to nightclubs and roller rinks. This section is probably growing faster than any other section in the store.

You must have great confidence in the accessory market, since you've devoted a whole individual room to them in your store.

Breitzke: At the NAMM convention in June, the biggest surge was in the PA end, and the synthesizers plus the special effects and the accessories. They're coming out with so many things to enable the guitar player to cover all these different areas.

Rubin: You see, the main problem the guitar player has is that the more sophisticated the electronics, the higher the mortality rate. Because as soon as they get something off the drawing board and get it on the market, someone else is shooting in and in three months they have something that's a little bit better. We try to help the customer decide what brand is better and that's one of the reasons why we developed a whole different department.

One can't help but notice how departmentalized this store is. What is the philosophy behind this?



PHOTOS BY MARK GIFFORD

HIGH BIAS.

These cassette deck manufacturers use SA as their reference for the High(CrO_2) bias/EQ setting:

AIWA · AKAI · CENTREX · JVC
KENWOOD · MERITON · NAKAMICHI
OPTONICA · PIONEER · ROYAL SOUND
SANSUI · SHARP · TEAC · TOSHIBA
UHER · YAMAHA

And are joined by these in recommending SA for use in their decks:

BANG & OLUFSEN · DUAL · FISHER
HARMAN/KARDON · LAFAYETTE
SANKYO · TANDBERG
AND MANY OTHERS.

There's been a quiet revolution going on in the cassette world. ☐ Leading makers of quality cassette decks have adopted TDK SA as their reference standard tape for "High" (CrO_2) bias and equalization settings. Why TDK SA? Because TDK SA's advanced tape formulation and super precision cassette mechanism let them (and you) take full advantage of today's advanced cassette deck technology. ☐ In addition, a growing number of other companies are recommending SA for use with their machines. ☐ So for the ultimate in cassette sound and performance, load your deck with SA and switch to the "High" or "CrO_2" bias/EQ settings. You'll consistently get less noise, highest saturation and output levels, lowest distortion and the widest dynamic range to let you get the best performance from any quality machine. ☐ But you needn't believe all this just because we say so. All you have to do is check our references.

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CIRCLE 89 ON READER SERVICE CARD

Rubin: All of our salesmen are specialized to handle their own department so that their customers feel confident that when they come in the salesman can talk to them and know what he is talking about.

Coincidentally, I was in this store around six months ago and frankly, I don't recognize anything.

Breitzke: That's one of our philosophies. We change everything constantly. For example, let's take the guitar and amp department. What's over there this week might be arranged differently next week. That spontaneity gets a customer who was in a week ago looking at an amp that was sitting right here . . . well now he has to look for it again. This way he might find

something better or different. Where a customer knows where this amp is sitting, he can walk right up to the amp and totally pass everything by.

Rubin: We have people coming in just to see what's different this week. Another comment we get as they come in the front door is, "I can't believe it, it's all changed again." You can stand at that door and time and time again, that's what you'll hear.

Breitzke: The accessory department is a good example. It used to be where all the guitars are now, it used to be in the middle of the floor, it was up here in front, it was back there in the back, now it's over here in the corner. So they never know where the stuff is going to be. And when it's going to change, which usually happens pretty quickly. The remodeling jobs are a

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CIRCLE 91 ON READER SERVICE CARD

result of the efforts of everyone involved. We all put in full days, because no one has had the time to do it during the day. We've stayed until three or four o'clock in the morning. It took about two months to do our newest renovation. So it's important to have the interest of the people involved too. Our people are not just nine-to-five people. They're generally concerned with the best interests of the store and the customer. They give up their free time to better promote the business. This is a key ingredient to a successful business. Again talking about all of our changing . . . during the NAMM convention we became interested in novelty merchandise. This is not necessarily for the musician, but for the girl friend or the wife and the three kids. For example, a guy may come in and spend one-hundred dollars on himself and maybe five dollars for a pin or an inexpensive musical novelty, but the fact is that he buys his girlfriend something after she's sat here for an hour. It keeps everyone happy. Then she doesn't mind coming in with him.

Rubin: The novelty is not a money maker. We're just trying to accommodate the customer.

How do you handle the service end of the business?

Rubin: We have pick-up and delivery two times a week. We normally have a customer's equipment back within a week. While he's waiting, we try to give him something to use.

Breitzke: Repairs are a kind of necessary evil. I put together an exclusive program with other music dealers. We probably have more instruments out on loan than any other store in the area.

What kind of displays have been put in the storefront windows?

Breitzke: We've gone as far as having mannequins in the front window. They were dressed up as musicians. It was something different. It had a lot of people looking. You know, cars were stopping in the middle of the street to look.

Rubin: We almost had a couple of accidents out on the street.

Breitzke: We had a fellow working for us at the time who is now working for Ampeg as a clinician. He had long black hair and a full beard. We dressed up one of the mannequins to look just like him. Not only did it get people to stop, but it put a lot of people in a good mood because it was a joke type of thing. If someone was in a bad mood walking down the street, he would be laughing when he walked in the front door, especially when he saw the guy who was in the window.

What kind of advertising do you find useful?

Rubin: At this point we're not doing any national advertising. Right now weve been using the *Chicago Sun-Times* and a couple of entertainment newspapers like the *Illinois Entertainer* and *Triad*. I think our best response comes from our direct mailing which follows the customers. Although we don't advertise nationally,

it seems we've been getting a lot of national business. This leads us to believe that probably the most effective means of advertising is by taking care of the guy who walks in the door and letting him tell someone else. It's a little slower, but it's very effective.

In what area is the largest percentage of your business? Has the industry changed in that respect?

Breitzke: Our biggest department as far as business is the guitar and amps. What seems to be happening right now is that the era of wall-to-wall amps is slowly fading. Musicians in general are reverting back to smaller amps with better quality and are in turn running them through the overall PA system. This is bringing the PA in and changing the percentages.

What do you think has been the greatest change in the music merchandising industry.?

Rubin: The whole industry has changed as far as the awareness of the

musician. I mean, let's go back fifteen years when you had five guys with cords and mixers plugging into a Fender Bandmaster. No one knew what the difference was between a 4 ohm and an 8 ohm load, a millivolt sensitivity into the input, and what was driving into the input versus what was coming out of the output. No one was concerned with that. All you had to do was plug into the Bandmaster and play. We're not trying to make the musician a technician, but if he isn't aware of some of these things, what he can or can't do, we'll end up with the equipment in our lap.

You make financing available to musicians. How does it work?

Breitzke: In the past we have offered people who couldn't qualify for traditional financing with banks or financing companies a step-up program. We would sell a person a guitar and amp of lesser value than what he wanted. We would then put it on a house account to get some kind of track record on payments. Then as time went on and he paid that off . . . in turn we would step him up to something better. We have other programs that are off to the side that are kind of special trade-up programs. Like receiving partial or full value back on one item towards another one as money becomes available so that the customer can stepup.

Rubin: Financing is always a problem in the music industry. Last year we had over a quarter of a million dollars in turned down business.

How is your store unique from other music retail stores?

Rubin: We try to stay up on the new products that are coming out. We try to offer a musician a large selection and we try to give him a comfortable atmosphere. We try to provide a place that is clean to the point where he's

Advertiser's Index

not afraid to bring his girlfriend or parents. But then again we try to make the store non-sterile, where a musician is not afraid to touch something. I have a good analogy. There are two types of musical groups. One guy takes his guitar or accordian and throws it in his trunk and he doesn't see it again until next weekend when he has his next job. The other group, the more aggressive group, is practicing on that instrument every day. They come up with different ideas and are looking for new things. In essence, they're just trying to stay on top of things. This analogy can be compared to the retail business. You have the retailer who has his guitars on the wall and his amps on the floor in the same place everyday. He opens his door in the morning, goes through his day of business ... finishes and closes the door and he does it the next day—the whole thing over again. On the other hand we come in here and try to think of what we can give the customer that is different. What's going to make it better for our employees? If we make it better for employees we'll make it better for the customer. Generally, we're always trying to think how we can improve the whole thing.

INDUSTRY UPDATE

Jon R. Kelly has been named president of Audio-Technica U.S., Inc., with **Fred Nichols** promoted to Vice President-Marketing of the firm. **H. Matsushita** was named Chairman of the Board and **M. Nemoto** has been promoted to Vice President-Engineering.

Koss Corporation has promoted **Thomas J. Beczkiewicz** to Vice President and Chief Financial Officer. Beczkiewicz was previously the firm's treasurer and controller.

Patrick Dawson and **Scott Barella** have been named winners of a contest sponsored by JBL involving dealer evaluation of the JBL L110. Dawson and Barella are salesmen at Grice Electronics in Pensacola, Florida and Moe's Sight and Sound in Casper, Wyoming, respectively.

Jim Hall, principal of the J.E. Hall Company, was named JBL rep of the year at JBL's recent national sales meeting. The J.E. Hall Company has its headquarters in Salt Lake City.

Marvin Lubow, Marketing Director and a principal of Morley and **Greg Heet**, principal of Heet Sound Products, have revealed Morley's appointment as the exclusive distributor of Heet's Energy Bow (E Bow).

The **Consumer Electronics Show** has reported itself one of the "three top super shows in the United States," with attendance at the June show topping 55,000, and 821 exhibits using 436,416 net square feet of space.

Winners have been announced of the Maxell National Tape/Travel Contest for dealer-salesmen. Grand Prize winner was **Eric Hahn** of Warehouse Audio, Atlanta who won a trip for two to Japan. First prizes of trips within the U.S. were won by **Steve Terrio**, Watson Equipment Sales, Camp Hill PA; **Greg Cooper**, Swallens Audio, Middletown OH; **William Weiss**, Weiss Distributing, Raleigh NC; and **Thomas Conrad**, Great American Stereo Warehouse, Seattle WA.

Under its Golden Reel Awards program, Ampex Corporation has awarded another $10,000 in grants to the favorite non-profit organizations of top recording artists. Grants were made to: Ducks Unlimited (Ted Nugent), World of Literature Crusade (Debby Boone), Bertha Abess Children's Center (Bee Gees), Sickle Cell Foundation (George Duke Band), UNICEF (Dan Fogelberg), Hearing and Speech Center of Florida (William Bell) and March of Dimes (Bob Segar).

Audio Potentials, Inc., a new Akron Ohio marketing organization, has been named U.S. importer and distributor of Gale Electronics products.

Albums winning the 1978 Audio Excellence Record Awards have been announced by Audio-Technica U.S., which conducts the annual awards. Winners included "Tchaikovsky: The Six Symphonies and Manfred" (EMI SLS 5099); Steely Dan's "Aja" (ABC AA 1006); and "Comin' From a Good Place" (Sheffield Lab 6) by Harry James and his Big Band.

The American Music Conference has inducted the first seven individuals to its "Hall of Fame." Recipients include **M.H. Berlin**, founder of Norlin Music, **Leo Fender** of CLF Research and Music Man, Inc.; **Don Leslie**, consultant to CBS Musical Instruments and developer of the Leslie speaker; **Philip Werlein**, president of Werlein's for Music; and **Paul E. Murphy, Sr.**, president of M. Steinert & Sons.

Gulton Industries has acquired Tapco as of August. Tapco will operate as a Gulton industry, reporting to Electro-Voice. No management or distribution changes are anticipated, according to Gulton.

Vern Eszlinger has been named Director of Marketing for Fender/Rogers/Rhodes/Squier, CBS Musical Instruments. Eszlinger has been with the company for the past 11 years. In his new capacity, he will be responsible for marketing, advertising and coordinating new products on a world-wide basis.

Trusonic, a new California Corporation, has acquired the assets of the Trusonic Division of Utah/American, Huntington, Indiana, and will continue to manufacture the Trusonic line of musical instrument, home high fidelity speaker systems and car stereo.

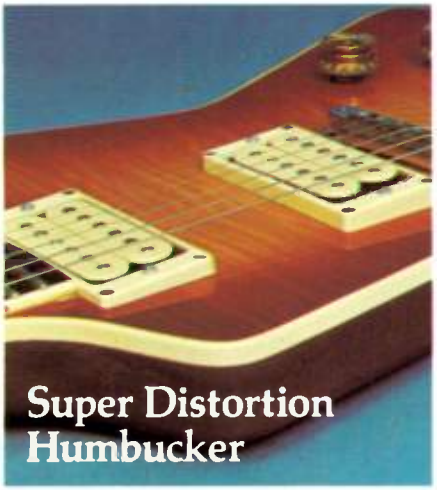
Koss Corporation has made several staff appointments. **Paul W. Preston** has been promoted to controller. **Peter H. Lindner** has been promoted to corporate credit manager. **Mark J. Happ** has been named accounting manager.

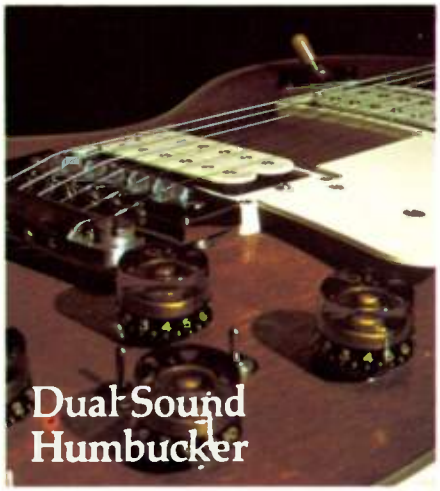
Joseph M. Petite has been named a product manager for Memorex's Consumer Products Division, responsible for domestic marketing activities for Memorex's line of high-fidelity products. At present, this line includes the Quantum open reel line and high-end tape and record accessories. Petite joins Memorex from Proctor & Gamble.

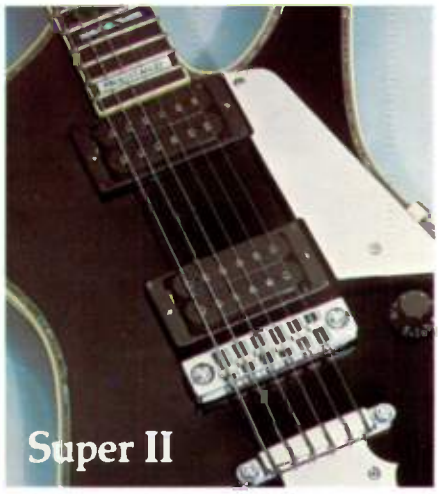
Aphex Systems, Ltd. has been assigned exclusive world-wide marketing rights for three new audio products developed by B&B Audio and B&B's **David Baskind**.

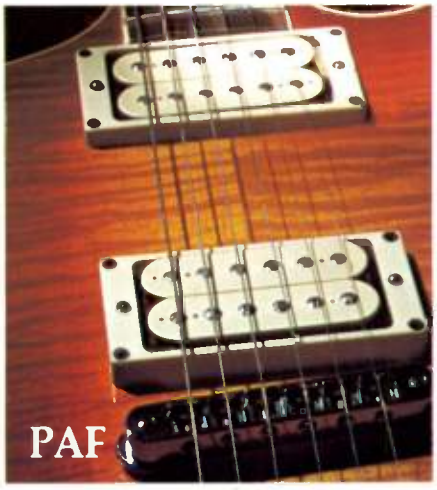
Bob Carver, founder and former president of Phase Linear, has announced a contest for brand name suggestions for the soon-to-be-announced Carver audio line. Entries should be sent to Carver/PO Box 604, Woodenville, Washington 98072 by November 30. The winner will receive a trip to New York and one of the first sets of the new audio components.

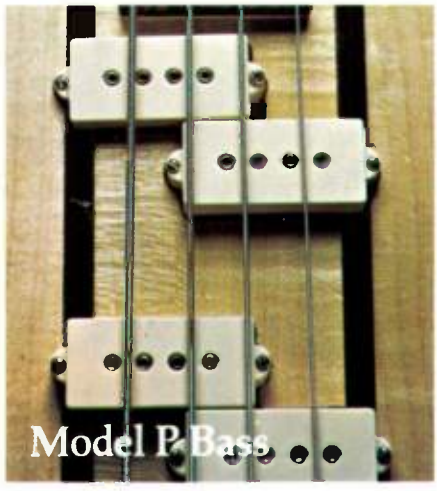
Don't choose one of these for our sound. Choose one for yours.











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SPECIFICATIONS	
Total Harmonic Distortion (1 kHz, +20dB output)	.004%
Intermodulation Distortion (+20 dB output)	.004%
Signal-to-Noise (Equivalent Input Noise)	-128 dB
Frequency Response (± 1 dB)	10 Hz-65 kHz

These are typical specifications measured by MODERN RECORDING in the "Hands-On Report", October 1977. The unit reviewed was a Model 1202, which the Model 3216 surpasses with even cleaner and quieter performance.

PRICES	
Eight channels in a sixteen-channel mainframe	5,580
Sixteen-channel mainframe, filled	8,940
Sixteen channels in a twenty-four channel mainframe	9,540
Twenty-four-channel mainframe, filled	12,900
Twenty-four channels in a thirty-two-channel mainframe	13,500
Thirty-two-channel mainframe, filled	16,860

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