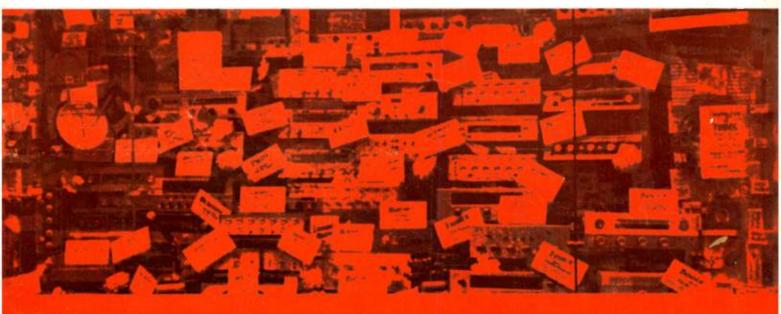
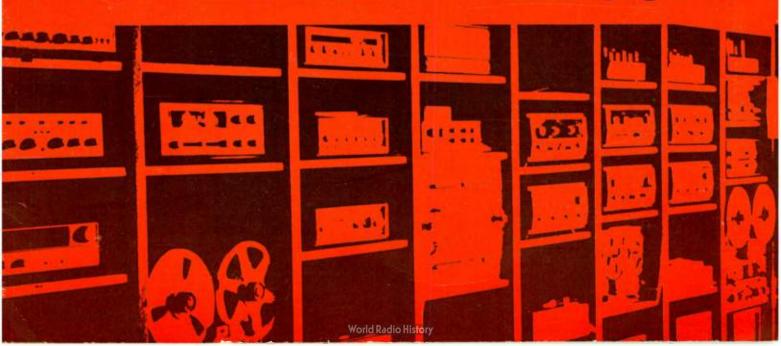
January, 1966

HIGH FIDELITY
ON THE STATE OF THE STATE OF

SPECIAL ISSUE:
Our
10th
FEB 14 1968



HOW THE HI-FI MARKET HAS CHANGED (page 35)



Amazing tower test proves superiority of Scott \$300 receiver!

Revolutionary new "Field-Effect" circuits end cross-modulation problem without sacrificing sensitivity



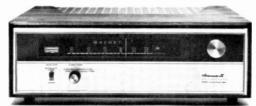


Paul Hurd, Engineer-in-Charge of WHDH-FM, Boston, Mass., is shown checking new Scott 342 FM Stereo Receiver for sensitivity and cross modulation rejection. The 1250-foot FM stereo and television transmitting tower operates at multi-kilowatt power 24 hours a day.



ANOTHER FIRST FROM SCOTT... FIELD-EFFECT TRANSISTOR CIRCUITRY

- Free of spurious responses and cross modulation
- Better selectivity
- Less frequency drift
- Lower inherent noise
- Greater usable sensitivity



315 All Solid State FM Stereo Tuner.





Scott 388 100-Watt AM/FM Receiver

ANOTHER FIRST FROM SCOTT FIELD-EFFECT TRANSISTOR CIRCUITRY

Hermon H. Scott discusses the latest technical innovation in Scott components, and how it can enhance your listening pleasure.

THE introduction of our new 388 solid-state AM/FM stereo receiver, 342 solid-state FM stereo receiver, and 315 solid-state FM stereo tuner marks the first time that field-effect transistors (FET's) have ever been used in non-millitary applications.

TRANSISTORS or TUBES? THE BEST of BOTH!!

A field-effect transistor is not like a conventional, bi-polar transistor, but is a unique type of solid-state device which controls current flow by means of an electrostatic field. The FET does not need heater power (as does a tube), or signal power (as does an ordinary transistor). The FET has all the advantages of both tubes and transistors, with none of their disadvantages:

- 1. Truly linear characteristics (like a tube) render the FET free of the spurious responses and cross modulation that characterize ordinary transistors.
- 2. High input impedance (like a tube) with less loading on tuned circuits than a transistor. This provides far better selectivity and permits more effective AGC than is possible with an ordinary transistor.
- 3. Low power consumption (like a conventional transistor) with resulting low heat dissipation. Thus, there is less frequency drift and less effect on associated components than with a tube.

FET's provide other significant advantages over both tubes and conventional transistors: FET's have lower inherent noise, and respond to weaker signals, thus providing greater usable sensitivity.

Proven by Stringent Tests

The practical implications of the use of FET's in an FM tuner front end were demonstrated in recent tests reported upon by Texas Instruments Incorporated, using the Scott 388 front end.

Results were as follows: "IHF sensitivities of 1.6 to 2 microvolts were obtained with spurious response (cross modulation) rejection of 96 db to in excess of 100 db. Two strong signals, equivalent to more than 50 mv per meter, separated by 800 kc, can be fed to the input of this front end without having any spurious intermodulation products generated by the front end. This performance is as good as, if not better than, the performance of the best tube front ends, and is at least 20 decibels better than the performance of the best available bipolar transistors."

Demonstrably Superior Performance

In terms of actual performance advantage, the new Scott 388 and 342 receivers, and the 315 tuner, incorporating FET's, are virtually free from spurious responses . . . they clearly tune in weak or distant stations which are usually masked out if ghost signals from strong local stations appear at unwanted spots on the dial. Drift, also, is virtually non-existent. These new Scott components are demonstrably superior to competitive units in that they tune in more stations . . . more clearly.

FIELD-EFFECT TRANSISTORS for FM FRONT-ENDS

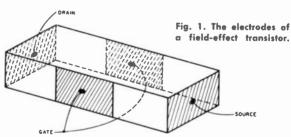
By DANIEL R. von RECKLINGHAUSEN Chief Research Engineer, H. H. Scott, Inc.

Use of FET's with their almost perfect square-law characteristic results in high-fidelity tuner with no spurious response nor cross-modulation problems.

PPROXIMATELY ten years ago the inventor of the transistor described a new type of amplifying device which he called the "field-effect transistor," now known by its initials, FET. It was not until a few years ago that the very first field-effect transistors began to appear, costing more than \$30.00 each and being treated more or less as curiosities. Within a short time, a few of the beneficial aspects of these transistors were realized and occasionally they found their way into military equipment. The first advantage was that FET's had a

very high input impedance but circuit designers who had experience only with transistors found that they had to apply unfamiliar vacuum-tube circuit techniques.

In a conventional transistor, more properly described as a "bi-polar transistor," internal operation takes place by the movement of electrons and holes. In a field-effect transistor, only one type of carrier moves; for example, electrons only. This can be illustrated by the schematic representation of an FET as shown in Fig. 1. Here the field-effect transistor is just a bar of semi-conductor material, such as n-type, with electrodes attached at both ends. When a voltage is applied, the electrons move between the two electrodes marked "drain" and "source" and move the same way as they do in an ordinary resistor. If two electrodes are attached to the sides of the semiconductor material, these electrodes, again being a semiconductor material but of the opposite type as the bar (here p-type), and a reverse voltage is applied to these electrodes (known as the "gate"), the effective width of the bar through which the electrons can travel is now reduced and the



current through the bar decreases. It is the electric field from the gate electrodes which suppresses or restricts current flow in the main channel (much as does the grid in a vacuum tube); hence the name "field-effect transistor." Since only one type of carrier is moving in this transistor, field-effect transistors are also known as "uni-polar transistors."

Today, several makes of FET's are available and the price has dropped from many tens of dollars to only a few dollars. Also, today there exist various types of field-effect transistors, such as insulated-gate transistors, metal-oxide field-effect transistors, and even thin-film field-effect transistors. In particular, the insulated-gate FET's have extremely high input impedances. They are, however, also extremely fragile because electrostatic charges generated as the transistor is pulled out of a plastic package can build up a high enough voltage so that the insulation of this gate can break down. FET's without insulated gates do not suffer from this problem, are rugged, and yet have very high input impedance.

Square-Law Characteristics

The characteristics of an FET that interest the circuit designer most are, of course, how well these transistors behave in a circuit and what advantages they offer. As far as high-frequency operation is concerned, high input impedance is of little consequence. The major advantage of field-effect transistors is that the drain current is approximately proportional to the square of the bias voltage applied to the gate.

What is the advantage of such "square-law" behavior?

If a transistor, or any other device, has a pure square-law characteristic, the following effects take place. If only one frequency is applied to the input, this input frequency will also appear at the output along with some d.c. and the second harmonic of the input frequency. No other harmonic is created. In tuned amplifiers, the second harmonic is of no consequence because it is outside of the frequency range allowed to pass through the tuned circuit.

If two frequencies are fed to such an amplifier, the fundamental and the second harmonic of each of the two frequencies, as well as the sum and difference of the two frequencies, appear in the output. Again no other frequencies are created. If these two original frequencies are close together, the only two frequencies which will then appear in the output tuned to one of these frequencies will be the two original input frequencies. Since the sum of the two frequencies and second harmonics of both are too high and the difference too low, all except the original frequencies are rejected by the tuned circuit. In other words, a square-law device is a very good tuned r.f. amplifier.

A square-law device also becomes a very good mixer if the output circuit is tuned to the difference between the two high input frequencies. Furthermore, if one of the two "frequencies" is just d.c., the output will still be that of the one frequency and the gain at this one frequency will then be controlled by the amount of d.c. Hence, a square-law device is also excellent for automatic gain control purposes.

Theory indicates that a field-effect transistor should be an

ideal square-law device. Practically, it is only a few percent deficient. In contrast to this, tubes operate with a "three-halves power" characteristic thereby generating not only the second but also substantial higher harmonics and intermodulation products. Normal transistors have a diode characteristic, and a great number more harmonics and IM products of higher amplitude are created than in a tube. Hence, the normal transistor creates more undesirable distortion than a field-effect transistor for r.f. front-end applications.

Some Practical FM Problems

Let us look at some of the practical problems with FM. Within the last year, the Federal Communications Commission has authorized higher power for FM stations and has also issued an assignment table for FM stations. The result is that more strong stations are on the air, presently in excess of 1300 in the United States. The FCC Assignment Table specifies that stations in any general locality be spaced 800-kc. apart. For example, in the New York City area the FM band between 88 and 108 mc. has room for 25 stations spaced 800-kc. apart. All 25 channels are in use by educational and commercial stations in New York City and in Paterson and Newark, New Jersey, with the exception of one channel at 89.1 mc., which is reserved for the United Nations. Most of these stations are very powerful and r.f. signals of several tens of microvolts per meter to several volts per meter are not at all uncommon in the New York City area. Furthermore, many of these stations broadcast from antennas in the midtown area, so directional

receiving antennas are of no use in reducing the unwanted input signals.

A high-quality FM tuner capable of high spurious response rejection can receive these signals with little spurious response and cross-modulation problems. These, if present, would show up as audio distortion on some stations due to r.f. intermodulation products, and as spurious signals on unoccupied portions of the FM band.

However, some transistorized FM tuners and even many of the earlier low-cost tube-type FM radios show evidence of spurious signal reception with field strengths of as low as 3 to 7 mv. per meter. Tube tuners in general are considerably better and this is why tubes, or nuvistors, have been in the front-ends of high-quality frequency-modulated tuners which were otherwise completely transistorized.

Advent of the FET

The advent of field-effect transistors has now given the circuit engineer an opportunity to design high-frequency circuits with the transistors without any sacrifice in performance, and an improvement in performance in many respects. However, as with any new device, there are a number of factors which have to be recognized.

For example, the parameter variations in FET's are quite large. The drain current (equivalent to plate current of a tube) at zero volts pias can vary over a range of 30 to 1 or more. For this reason, a substantial amount of d.c. stabilization must be used in order to maintain the proper operating current.

Fortunately, once a field-effect transistor of a particular type has been adjusted to a particular drain current, the gain of any transistor of the same type varies only $\pm 25\%$. Further compensation will reduce this variation to still lower values.

Field-effect transistors have a poorer gain-bandwidth product than presently existing bi-polar transistors. In order to use FET's at high frequencies, the circuit has to be neutralized—more so than when using bi-polar transistors. As a result, the gain achievable is lower. However, the transconductance is quite constant with frequency and, therefore, field-effect transistors make good tuned amplifiers.

Fortunately, the noise created by field-effect transistors is very low. In tubes, the figure most often mentioned as a figure of merit is the equivalent noise resistance. The lower the equivalent noise resistance, the lower the noise of the tube. For a triode tube, the equivalent noise resistance is approximately equal to 2.5 divided by its transconductance. In a field-effect transistor, the equivalent noise resistance is only 1 divided by its transconductance. Therefore, field-effect transistors with considerably lower transconductance than customary in tubes can still be used for low-noise amplifiers.

Field-effect transistors are available with either n-channel (equivalent to p-n-p transistors), or p-channel (equivalent to n-p-n transistors). Of these two types, the n-channel type is the better high-frequency transistor because of a better ratio of transconductance to stray capacitances.

A bonus with field-effect transistors is that their capacitances

change very little with temperature. This minimizes detuning and insures stable circuits.

Two major disadvantages of field-effect transistors for this application should be mentioned. They are very high in impedance and cost. Their high impedance causes no difficulty in high-frequency circuits, but in audio and video circuits large amounts of mismatch will have to be tolerated in matching to normal transistor circuits. With continuing improvement in techniques, the cost of field-effect transistors has been reduced considerably and should continue to drop.

A number of FET FM front-ends have been developed at the H. H. Scott laboratories and the circuit of one of these is shown in Fig. 2. The input signal from the antenna is first selected by a tuned circuit and then amplified in a field-effect transistor cascode circuit operated in parallel for d.c. The first

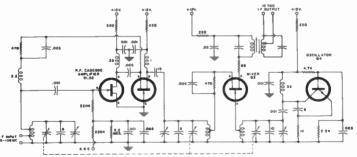


Fig. 2. Circuit diagram of the FM tuner front-end which employs three field-effect and one conventional transistor.

stage is neutralized with a 2.2- μ hy. coil. The cascode stage produces a power gain of approximately 25 db.

The output of this stage is applied to a second tuned circuit and the amplified signal is injected into the "source" of the converter stage, which is also a field-effect transistor.

The "drain" is connected to a conventional tube-type i.f. transformer tuned to 10.7 mc. The mixer transistor operates as an attenuator for the r.f. signal controlled by the instantaneous oscillator voltage. The oscillator is a conventional commonbase transistor oscillator and the output voltage from the oscillator is applied to the gate of the field-effect transistor mixer.

With a large variety of field-effect transistors, IHF sensitivities of 1.6 to 2 microvolts were obtained with a spurious response rejection (or cross-modulation rejection) of 96 db to over 100 db. Two strong signals, equivalent to more than 50 mv./meter separated by 800 kc. can be fed to the input of this frontend without any spurious intermodulation products being generated. This performance is as good, if not better, than the performance of the best tube front-ends and is at least 20 db better than the performance of the best transistorized frontends using the best available bi-polar transistors we have checked.

This circuit is not designed for home construction. These transistors are manufactured specifically for H. H. Scott and are not available from distributors.



Hermon H. Scott, President, Chairman of the Board, H. H. Scott, Inc.; BS and MS in EE, M.I.T.; Fellow, Institute of Electrical and Electronics Engineers; Fellow, Acoustical Society of America; Fellow, Board of Governors, President (1962), Audio Engineering Society; Chairman of the Board (1961), Institute of High Fidelity; Received

Potts Medal of Audio Engineering Society for Outstanding Contributions to Audio Science; Distinguished Service Award of President's Committee on Employment of the Physically Handicapped; Inventor of electronic sweep circuit, RC oscillator, dynamic noise suppressor, etc., with over 50 U.S. and foreign patents; Member, M.I.T. Alumni Council; Registered Professional Engineer; Trustee, Boston Opera, Union Savings Bank; Lecturer, Dartmouth's Tuck Graduate School of Business Administration; Author, numerous articles on electronics, acoustics, sound measurement, and sound reproduction.

Daniel R. von Recklinghausen — Chief Research Engineer, H. H. Scott, Inc.; BS in EE, M.I.T. (Tau Beta Pi, Sigma Xi, Eta Kappa Nu); Chairman, Standards Committee, Institute of High Fidelity; Chairman, Sub-Committees 4.1 and 5.4 National Stereophonic Radio Committee; Fellow, Board of Governors, Editorial Board and Chairman-Standards Committee, Audio Engineering Society; Senior Member, Executive Committee (Boston), Chairman of Professional Group on Audio, Institute of Electrical and Electronics Engineers; Named One of Ten Outstanding Young Men of 1960 by Greater Boston Junior Chamber of Commerce; Author, numerous articles on amplifiers, tuners, stereo multiplex and solid-state circuits.





H. H. Scott, Inc., 111 Powdermill Road, Maynard, Mass.

© 1965 H. H. SCOTT, INC. PRINTED IN USA P-15-12/5

World Radio Histor



The toughest place to test a solid-state FM tuner is right at a strong transmitter site. Being this close to the overpowering signal of the station causes ordinary tuners to "cross modulate." A powerful station will appear at many points on the dial, obliterating other FM signals listeners want to receive.

To prove the superior cross modulation rejection of Scott's new Field Effect circuitry, the 342 FM Stereo Receiver was tested right at Boston's WHDH-FM transmitter tower. Here the radiated energy from the multikilowatt transmitter is at maximum level, and any susceptibility of a receiver to cross modulation would be drastically evident. Not only did the Scott 342 reject cross modulation exceptionally well, but, equipped only with the normal FM dipole antenna supplied with the unit, the 342 picked up 31 stations loud and clear in spite of impossible reception conditions.

Outstanding Engineering Accomplishment

Until development of Field-Effect circuitry by Scott engineers, it was impossible for an all-solid-state FM receiver to provide the listener with both high sensitivity and freedom from annoying cross modulation. This test strikingly demonstrates achievement of both desired results. Cross modulation rejection is at least 20 db better than conventional designs . . . and there is no sacrifice of sensitivity. In separate tests reported by Texas Instruments, Inc., a new Scott field effect transistor (FET) front end gave 1.6 microvolts sensitivity, over 96 db cross modulation rejection . . . hailed as an outstanding engineering accomplishment.

Transformerless, All-Silicon Design

In addition to new FET FM front end design, the Scott 342 incorporates directcoupled output circuitry featuring rugged silicon transistors. Output and driver transformers, major sources of distortion and diminished power, are eliminated from Scott's advanced solid-state amplifier design.

Other pioneering features incorporated in the Scott 342 are: Silicon IF circuits with superior selectivity, stability, and wide bandwidth; silver-plated front end for maximum sensitivity; and sophisticated circuits to safeguard the receiver and associated speakers from such common occurrences as accidental shorting of speaker leads, or subjecting the input to a high level transient signal. Unconditional stability protects the amplifier even if operating without a load, and assures satisfactory operation with capacitive loads, such as electrostatic loudspeakers.

Technical Specifications of 342

Controls include tape monitor; speaker switching; balance; stereo bass, treble, and volume; automatic stereo switching, and front panel stereo headphone output. Specifications: Usable sensitivity, 2.5 μv; Frequency Response, 18-25,000 cps ±1 db; Cross Mod. Rejection 85 db; Music Power Rating (4 ohm output), 65 watts: Stereo Separation, 35 db; Capture Ratio, 6.0 db.





Write for Scott's informative new booklet on field-effect transistors . . . the most important development in FM reception since multiplex:

Scott...where innovation is a tradition



H. H. Scott, Inc., Dept. 255-01, 111 Powdermill Road, Maynard, Massachusetts Export: Scott International, Maynard, Mass. Prices and specifications subject to change without notice. Prices slightly higher west of Rockies.



HARMAN-KARDON SR-900B

STRATOPHONIC
ALL-TRANSISTOR FM RECEIVER

DELIVERING

100 WATTS

FROM 5 TO 60,000 CYCLES AT FULL RATED POWER

\$449.00

Slightly higher in the West



At full 100-watt power, the flat frequency response of the SR-900B far exceeds the 1-watt response of any other receiver

The world's finest FM stereo receiver now delivers more power than ever. With this new instrument we've taken advantage of our considerable lead time in transistor know-how to bring you *usable power* unmatched by any other receivers regardless of their power ratings.

As the industry pioneer in both silicon and germanium transistor application, we discarded silicon output transistors in designing the original Stratophonic Series. One of our reasons was the greatly increased power-bandwidth capability inherent in the latest diffused-junction germanium output devices. Thus, the great new SR-900B actually puts forth more pure undistorted sound than is attainable in receivers rated as high as 120 watts.

Seldom is any amplifier called upon to deliver its full power. However, even at the power levels normally used for stereo listening, only Harman-Kardon Stratophonic components deliver full usable power... flat response throughout the bandwidth, even at maximum power (the severest test ever put to an amplifier). In fact, the

frequency response of the new SR-900B at full power far exceeds the response of other receivers at one watt (where any amplifier's response is greatest). This extraordinary power/ frequency-response capability explains the transparency of sound achieved throughout the entire Stratophonic Series.

The new SR-900B employs the ultra-sensitive (1.85µv IHF) all-transistor FM front end which made the original SR-900 famous. Here is the most sensitive and selective solid-state tuner ever developed—the first to surpass vacuum-tube performance. A new easy-to-read D'Arsonval tuning meter and positive-action automatic stereo indicator complement the handsome front panel.

You must, by all means, hear the new SR-900B ... logical successor to the instrument that last year set a new standard for the high-fidelity industry. Talk with your Harman-Kardon representative today. Or write Harman-Kardon, Inc., 15th & Lehigh Ave., Philadelphia, Pa. 19132.

Tone quality, reliability, freedom from heat... Harman-Kardon's compelling reasons for switching from silicon to germanium output transistors

1. Tone quality

With germanium output transistors we attain a flat and undistorted frequency response up to 60,000 cps, as compared with the bare 20,000 cps (with poor linearity) of the silicons used by other manufacturers. Germanium outputs are directly responsible for the outstanding power bandwidth and frequency response which give our Stratophonic components their characteristic clean, transparent sound quality.

2. Reliability

Since the cost of silicon and germanium output transistors is now equal, let it be emphasized first that economy does not enter the picture. In an industry plagued in the past by transistor failures, we solved this problem by defining a safe operating contour specification for our output transistors. Transistors capable of passing this specification do

not fail in operation. To our knowledge, no silicon transistor now commercially available can operate safely within this specification.

3. Freedom from heat

Silicon transistors must be operated at higher idling current and voltages to overcome inherent poor linearity, high saturation resistance, and low amplifier efficiency. These shortcomings all add up to heat in operation. And heat is the reason for the elaborate heat-dissipation devices in present-day silicon transistor amplifiers. But, despite the precautions, many of these units run actually hotter than their vacuum-tube predecessors. Harman-Kardon Stratophonic components do not require complex heat sinks, for the simple reason that, even without them, they operate as much as 50 degrees cooler than competitive components.





A subsidiary of The Jerrold Corporation

LEADER IN SOLID-STATE STEREO COMPONENTS

Speaking of delayed deliveries

Two columns ago, we optimistically changed the address at the bottom from 12 West 18th Street to 535 Madison Avenue. At that time, we confidently hoped to be in our new offices by mid-November.

This was obviously premature, because at this writing, we are still on 18th Street. But we are again hopeful that when *this* issue arrives on your desk, we shall indeed have made the move.

(Actually, more than one move is involved, as our service and shipping will be at separate and greatly expanded warehousing facilities.)

This delay was just one more result of the extraordinary consumer demand that has taken all our resources—and then some—to get merchandise in the required quantities to our dealers.

More than once we turned to Seaboard World Airlines to leapfrog regularly scheduled shipments that were already en route via ocean freight.

Nothing resembling our normal routine went on during those recent weeks, as we did our utmost to make fair and equitable allocations to all of our many hundreds of dealers, large and small, from one end of the country to another.

We are both pleased and relieved to say that this period is well behind us. And while we've never been big for making resolutions, there's one that does come to mind. Simply, to make this past year's enormous consumer demand for Dual and our own all-out effort to meet that demand seem routine in 1966.





HIGH FIDELITY THE TOURS

In this issue

Volume 10, No. 1

January, 1966

How the Market Has Changed! 35

Celebrating our tenth year, we take a look back over the other nine — years that brought profound changes and marked the real emergence of hi-fi.

Selling Today's Sound

46

Techniques for selling component high fidelity — techniques suggested by some of hi-fi's top salesmen.

50 Great Selling Ideas

62

A checklist of proven profit-makers.

DEPARTMENTS:

ADVERTISERS' INDEX	84
AS WE GO TO PRESS	26
CALLING CARDS	82
DEALER ADS	54
EDITORS' PAGE	32
IT'S NEWS	28
PRODUCTS FOR PROFIT	64
REP APPOINTMENTS	84
TAPES	80
TO HELP YOU SELL	78
YOU'RE TELLING US	30

Executive Editor

Anthony Lord

Edito

Robert Long

Contributing Editors

Edwin Bergamini John Cornell

Circulation

Etta Eisman

Advertising New York (exec. off.):

S. Kenneth Nelson 25 W. 45th St., New York, N.Y. 10036 LT 1-8840

Chicago:

Stuart J. Osten 333 N. Michigan Ave., Chicago, III. 60601 DE 2-3507

West Coast Reg'l Mgr.:

Stan Sherman Suite 1612 6290 Sunset Blvd. Los Angeles, Calif. 90028 466-8321

HIGH FIDELITY TRADE NEWS—Vol. 10, No. 1. Copyright © 1966 by St. Regis Publications, Inc., Published monthly by St. Regis Publications, Inc., 25 W. 45th St., New York, N. Y. 10036 Publishers: J. T. Schwartz and L. D. Solomon. Accepted as controlled circulation publication at Englewood, N. J. Advertising rates on request. This magazine assumes no responsibility for equipment loaned to conrtibuting writers for developing story material unless specifically authorized by the executive editor. Change of address notices must give old as well as new address. Attach address label from recent issue. Printed in U.S.A.

DUAL 1009 **Auto/Professional Turntable**

... closes the gap between the automatic and the manual turntable. \$99.50

DUAL 1019 **Auto/Professional Turntable**

... most sophisticated record playing instrument in the world today, \$129.50

DUAL 1010 **Auto/Standard Turntable**

... brings Dual quality to the medium-priced field. \$69.50



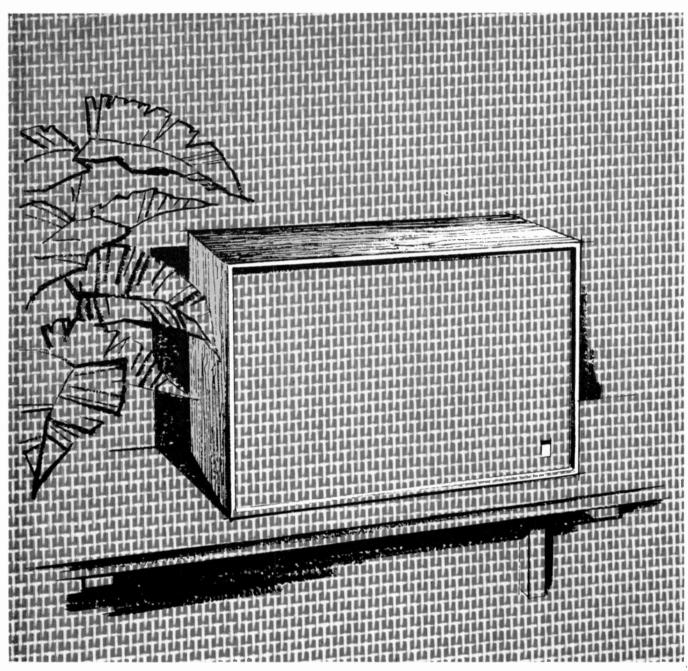




Who profits most when you sell up to a Dual?

Doesn't everyone?





The Hallmark of Jensen Craftsmanship





Jensen 600-XL bookshelf loudspeaker system is as close to live sound as you can get. See your quality Jensen dealer for the finest sound you've ever heard. Recommended resale price: \$269.50.

Canada: Radio Speakers of Canada, Ltd., Toronto • Argentina: Ucoa Radio, S.A., Buenos Aires • Mexico: Fapartel, S.A., Naucalpan, Mex.

24 HIGH FIDELITY TRADE NEWS

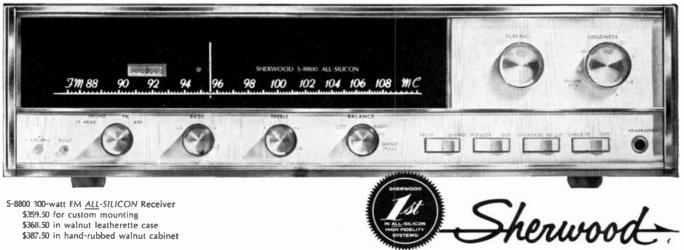
JANUARY, 1966

Compare these Sherwood features and specs! ALL-SILICON reliability. Noise-threshold-gated automatic FM Stereo/mono switching. FM stereo light, zero-center tuning meter, FM interchannel hush adjustment, front-panel stereo headphone jack, rocker-action switches for tape monitor, mono/stereo, noise filter, speaker disconnect and loudness contour. 100 watts music power (8 ohms) @ 0.3% harm distortion. IM distortion 0.1% @ 10 watts or less. Power bandwidth 12-35,000 cps. Phono sens. 1.8 mv. Hum and noise (phono) —70 db. FM sens. (IHF) 1.6 μν for 30 db quieting. FM signal-to-noise: 70 db. Capture ratio: 2.4 db. Drift ±.01%. 40 silicon transistors plus 14 silicon diodes and rectifiers. Size: 16½ x 4½ x 14 in. dp.

Model	V-Vacuum Tube S- <u>ALL</u> -SIL/CON T-Germanium Transistor	Power (IHF) 2 channels 8 ohms Watts	Max. IM Distortion Below 10 watts	FM Sensitivity Microvolts	Price	Dollars/ Watt	
Sherwood S-8800	s	100	0.10%	1.6	\$ 359.50	\$ 3.60	
Altec 711	S	100	0.15%	2.2	378.00	3.78	
Bogen RT 8000	Т	70 (4Ω)	0.3%	2.5	319.95	4.57	
Dyna FM-3, PAS-3, & S-70	V	90	0.1%	4.0	394.85	4.38	
Fisher 600 T	V&T	120	1.6%*	1.8¢	459.50	3.82	
Harman-Kardon SR-900	T	75 (4 Ω)	0.9%*	3.3*	429.00	5.61	
McIntosh MR71 & MA230	V&T	88	0.25%*	1.8*	748.00	8.50	
Marantz 8B, 7, & 10B	V	75¢	0.2%*	2.0	1170.00	15.60	
Scott 348	V&T	100	0.5%	1.9	479.95	4.79	

Reference "T" (above) may include some silicon transistors Figures above are manufacturers' published specifications except (*) which are published test findings.

SHERWOOD SPECS SPEAK FOR THEMSELVES



Sherwood Electronic Laboratories, Inc., 4300 North California Avenue, Chicago, Illinois 60618 Write Dept. 12H

There was bad news in the audio industry in December. Jack Cardenas, ad manager of JBL, died as the result of an automobile accident. And on the East coast Frank Andrea, board chairman of Andrea Radio and a real pioneer, died at the age of 77.

In an impersonal, business sense there was bad news, too. The Small Business Administration called a moratorium on the filing of direct loan applications. Reason given was inadequate funds available (from either appropriations or participation of investment capital) to keep going.

Bad news for New York dealers (as for everyone doing business in or with the city) the transit strike. Elpa offered relief by declaring a moratorium on invoices due during the strike to ease the squeeze.

AR announced a new direction for their marketing during December. They have been selling Southern California dealers through the services of Mark Markman on an experimental basis. This is their first try at using manufacturers reps. According to Jerry Landau, the result was sales more than doubled. So they have confirmed Mark as a permanent rep and arranged to be handled by R. A. Chalmers in Atlanta for the South Atlantic.

Another West Coast appointment in December was $\underline{\text{Byron}}$ $\underline{\text{Moore}}$ $\underline{\text{as}}$ $\underline{\text{Empire's}}$ $\underline{\text{regional}}$ $\underline{\text{sales manager.}}$

Lou Green of Airex, who had been talking about opening a store in New York's Herald Square, had decided to spread out instead. He says he's hoping to have ten sites in operation by the end of 1966 and has his eye on industrial parts operations as well as the hi-fi of the branches already in operation now.

<u>Electro-Voice</u> has just acquired an interest in <u>Jensen Industries</u> (the stylus manufacturers). E-V is making Jensen Industries products, but otherwise plans are to keep the operation unchanged.

Early in December, <u>rumors</u> <u>were buzzing</u> around about a move on the part of electronics manufacturers—at least those in the <u>package</u> field—to <u>leave the NAMM Show</u> in 1967 because they were expecting the Show to move to McCormick Place.

Bill Gard of NAMM cut the rumors short by issuing a flat denial of both the change of locale and the defection of exhibitors. Rumors seem to have grown from an effort to determine exhibitor preferences, in fact. A questionnaire circulated by NAMM had asked for opinions of McCormick Place, among other sites. But no decision to mave had been taken he said.

It now appears that there may be greater participation on the part of components houses than in the past. Possibilities were discussed at a recent meeting of Midwest manufacturers called by Larry LeKashman of E-V. The IHF, while declining to get involved in trade shows (it sponsors only consumer shows) is circulating a memo to all its members, calling their attention to the availability of space through Foster Lee of NAMM in Chicago. He will be setting up space on the Hilton 7th floor, or at the Pick Congress.

The SOUND INDUSTRY DIRECTORY for 1966 is now out. Anyone needing extra copies can get them for \$5.95 through Ken Nelson at our New York office.

Oops. Ed Shaver of Jensen (the loudspeaker Jensen) has written to point out that their $\overline{\text{TF-3}}$ has an 8-ohm tweeter, instead of the 80-ohms we inadvertently gave it in December. Sorry about that, Ed.



Capture natural sound with Pickering.

From the softest flutter of the woodwinds to the floor-shaking boom of the bass drum, natural sound begins with Pickering. Right where the stylus meets the groove.

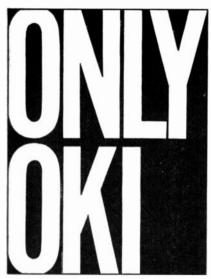
Any of the new Pickering V-15 stereo cartridges will reproduce the groove, the whole groove and nothing but the groove. That's why a Pickering can't help sounding natural if the record and the rest of the equipment are of equally high quality.

To assure compatibility with your stereo equipment, there are four different Pickering V-15 pickups, each designed for a specific application. The new V-15AC-2 is for conventional record changers where high output and heavier tracking forces are required. The new V-15AT-2 is for lighter tracking in high-quality automatic turntables. The even more compliant V-15AM-1 is ideal for professional-type manual turntables. And the V-15AME-1 with elliptical stylus is the choice of the technical sophisticate who demands the last word in tracking ability.

No other pickup design is quite like the Pickering V-15. The cartridge weighs next to nothing (5 grams) in order to take full advantage of low-mass tone arm systems. Pickering's exclusive Floating Stylus and patented replaceable V-Guard stylus assembly protect both the record and the diamond. But the final payoff is in the sound. You will hear the difference.

PICKERING—for those who can hear the difference.

Pickering & Co., Plainview, L.I., N.Y.



gives you such quality sound and weighs so little - at so quiet a price.

Only OKI 300 sounds so magnificent, and costs so little. It's a compact concert hall. lighter than 16 lbs., spectacular solid-state 4 track stereo. And it dresses up any room it's in. Hear it today - the matchless sound of OKI 300. Only \$219.95*. 1 year warranty.** See and hear it at your OKI dealer.



OKI 300



*Manufacturer's suggested list price. *1 year parts, 6 mos. fabor.



Chancellor Electronics, Inc. 457 Chancellor Avenue, Newark, New Jersey 07112

it's News

Sound Business Show rated high

"We'll definitely hold it again next year," is Norm Marshank's prognosis on the Sound Business Show as chairman of the show committee, sponsored by the Southern California Audio Division of the ERA. To demonstrate his reasons, he points to extremely high purchasing ability of attendees, low cost to exhibitors and good image-building mileage for reps as a "marketing catalyst." Consensus of the division's November meeting was reported as seconding his attitude.

Semmelink sees recoders up 15%

Wybo Semmelink, Norelco assistant v-p and Hi-Fi Products Dept. manager has said that he assesses the 1965 tape recorder market at a record 31/2 million units for a gain of 15% over 1964. Introductions of moderatepriced units of good quality plus increased consumer tendency to trade up to high-quality units were cited among causes.

ERA directory out

The Electronic Representatives Association has announced availability of its 1965-1966 Directory of Members.

Kleiman upped at Telex

Ansel Kleiman, general manager of Telex Acoustic Products (and former Viking g.m.) has been elected vice-



president of the parent Telex Corp. of Tulsa and president of acoustic products wing in Minneapolis.

Allied sets sales record

Continuing its recent rising curve, Allied Radio in Chicago reports that the first 12 weeks of their current fiscal year surpass any 13-week first quarter in their history, with sales up 14.7% to better than \$14 million and net earnings per share up from 10¢ to 31¢.

Rowley heads ad/PR for Lear

Joel M. Rowley has been named director of advertising and public relations by James Gall, director of marketing for the Stereo Div., Lear Jet Corp. Rowley, who comes to the division's Detroit offices from the V-M Corp. in Benton Harbor, Mich., reports preliminary ad an promotion budgets have already been set up to support expanded plans.

Wortman upped at Ampex

Leon A. Wortman, former CCTV product manager, has been named manager of professional audio products at Ampex in Redwood City. He



firm and has held marketing positions has had his own marketing consultant with Sylvania and RCA. In addition, he has written the "Closed Circuit Television Handbook."

Orrtronics goes to Toledo

Orrtronics, Inc. is moving mfg. and administration facilities to Willis Dav Industrial Park in Northwood, a suburb of Toledo, O. Toledo is already the home of Cousino Electronics Corp., the company's R&D division. Improved proximity to automotive markets for their 8-track stereo cartridge players and better transport in general are among motives cited by president Keith Wilson for the move.

New kind of show

A "Young America Exposition" is being staged at the Atlanta Merchandise Mart in March. Entertainment aimed at younger consumers (and including slot car racing) will be spaced around the exhibition floor and going continuously to keep floor circulation higher than might be expected with a single stage. One exhibitor is said to be planning on-the-floor market research, using the 300,000 young buyers the show is hoping to draw.

-More news on page 80

How to sell five top-quality stereo components as quickly as one:



The Fisher 85

The Fisher 85 includes a powerful all-transistor amplifier and master control center, a matched pair of Fisher loudspeakers (8" woofer and 2½" tweeter standard, larger system with 10" woofer optional), Garrard automatic turntable, and a Pickering magnetic stereo cartridge. The complete system, ready to play, is only \$269.50. With optional larger speakers, only \$299.50. Fisher Rad o Corporation, Inc., 11-35 45th Road, Long Island City, N.Y 11101

you're telling us

checked-out facts and comment—which is better than idle gossip.

John Sola High Fidelity House Pasadena, Calif.

Pro Clinics

Gentlemen:

Mr. Lee Kuby of Empire conducted a cartridge clinic at Audio Craft in Cleveland, Ohio on October 8th and 9th.

During the two-day period, we assisted Mr. Kuby and checked approximately 100 cartridges. This dealer promotion was an excellent one, from our point of view, because the dealer sold cartridges, stylii, and record changers. Some systems and tape recorders were also sold during the two-day promotion.

You may recall that I wrote you about the Tandberg Tape Recorder Clinic that was held at Audio Craft in Cleveland, during the first week of September. This clinic was also a big success.

I believe that many of these instore promotions with individual dealers are a good boost to any area, creating component interest.

I hope that you will be able to encourage other reps and manufacturers to hold such promotions with dealers to help us get a better share of the Audio business.

> Robert W. Peters Robert W. Peters Co. (reps) Cleveland, Ohio

Greetings from Scott

Gentlemen:

Congratulations on your tenth year. We have been advertisers in every issue and consider it the outstanding medium for reaching hi-fi dealers.

> Hermon H. Scott H. H. Scott, Inc. Maynard, Mass.

Model number corrected

Gentlemen:

We add our applause to that of the rest of the industry, for your fact-filled and very readable magazine.

Your coverage of the recent New York Hi Fi show was exceptionally good. It has probably been studied carefully by all your readers—and for that very reason we think it's important to correct one minor misprint.

The "first battery-powered recorder

with an automatic reverse feature" is not, as you stated, the Concord Model 330. It is the recorder that replaces the 330 in the Concord line this winter, our new Model 350.

Thank you for allowing us to clarify this point. And, again, thank you for the continuing service with *High Fidelity TRADE NEWS* is performing for the audio industry.

Barbara Pike
Public Relations Coordinator
Concord Electronics Corp.
Los Angeles, Calif.

How's that again?

Gentlemen:

Reading the first issue of *High Fidelity TRADE NEWS*, I gave it six months to live. Unfortunately, as with many of my projections these past couple of years, I've been proven wrong again.

Kidding aside, I give you just six more months.

Happy Birthday.

Lee Kuby Empire Scientific Corp. Garden City, N. Y.

Distribution, they've got

Gentlemen:

We would like of thank you for mentioning our new product [the Vega Servosound] on page 50 of the November issue of *High Fidelity TRADE NEWS*. Unfortunately, the unit should have been described as a "compressor/distortionless limiter" and not "distributionless." Hopefully, this won't cause too much confusion in your readers' minds. Possibly their curiosity will be sufficiently aroused to ask us what it's all about!

Charles F. Swisher Sales Manager Vega Electronics Corp. Santa Clara, Calif.

Tenth year salute

Gentlemen:

Has it really been a decade? We like your informative magazine and always look forward to it. It brings

Good word from Carolina

Gentlemen:

I would like to say that we find *Hi-Fi TRADE NEWS* most valuable. Congratulations are certainly due you and your staff.

John Troy Troy's Hi-Fi Durham, N.C.

Look at the competition

Gentlemen:

We always look forward to *High Fidelity TRADE NEWS* and find it most useful—an exceptional publication. We always like to compare what we're doing with what we read about our competitors.

Bud Kelly Dow Radio Pasadena, Calif.

Congratulations

Gentlemen:

Congratulations. High Fidelity Trade News always contains intelligent trade information. It is closer to the horse's mouth than some publications—on business trends, new product information and consumer desires.

Jack Turley Rancho Hi-Fi Azusa, Calif.

[HIGH FIDELITY TRADE NEWS wishes to thank the many people in the industry who have extended their best wishes on our tenth year. We started publication with an advisory panel composed of industry leaders; and it has been the active support of industry leaders in the intervening years that has made our continued publication possible.]

Gentlemen:

We find that it helps us to have a few phonograph records in our stock with the sale of phonographs and high fidelity equipment.

Could you please give us the name of *outlets* for phonographs records.

C. E. Berkman Berkmans College Store 2234 Guadalupe St. Austin, Texas 78705

JANUARY, 1966

You call it tiny. We call it progress!



This is the new E-V 1177.

An FM Stereo tuner and 50 watt stereo amplifier. All in one neat package.

Don't let its calm exterior fool you. The inside is packed with action. Solid-state circuitry born of our lengthy experience in aerospace electronics. Nothing wasted. Every ounce contributes to superb sound reproduction.

You can tackle the biggest musical sounds on record with the 1177. It's more than equal to the challenge. When teamed with a pair of famed ELECTRO-VOICE speakers, you've achieved a matched high fidelity system of rare excellence. And the E-V approach to high fidelity design makes installation easy and operation effortless.

Oh! One other thing about the E-V 1177.

The price. It's right in line with the size.

Small. Just \$280.00, including the walnut-paneled case.* See your E-V dealer for a demonstration. Or write for our complete high fidelity catalog. It's big!

*For just \$35 more we'll include AM, too.

ELECTRO-VOICE, INC., Dept. 1154SR
636 Cecil Street, Buchanan, Michigan 49107



microphones • public address loudspeakers • tuners, amplitiers, receivers • high fidelity systems and speakers phonograph needles and cartridges • organs • space and defense electronics

CALL IT WHAT YOU WILL... THE NEW SHAPE OF ELECTRONICS IS HERE. FROM ELECTRO-VOICE.

Until today, most stereo receivers were as alike as peas in a pod. Just by looking, you could hardly tell whether they used tubes or transistors.

Electro-Voice has changed all that.

We took a long hard look at the potential of solid-state, then used that full potential to create some of the freshest new ideas in the market.

Ideas you can sell — like compact size, easy-to-understand controls, movable station markers and a host of others.

Ideas that make good marketing sense — like integral walnut-paneled cabinets (that eliminate the need to stock empty boxes!) and styling that appeals to men and women alike.

We invite you to take your own hard look at the result: Electro-Voice tuners, amplifiers and receivers with the look of tomorrow—ready to earn you profits today.

But hurry. The market won't wait!

ELECTRO-VOICE, INC., Dept. 164B, 607 Cecil Street, Buchanan, Michigan 49107

EDITORIAL:

A man with sound in mind

This is about a man I know.

For someone with no outright connection with the audio business, he has, in an indirect way, sold a lot of hi-fi. Because his business has, even so, been intimately connected with sound. His delight in sound and his flair for the creation of beguiling sound is unique.

And compelling. Starting only with that flair (without even anything very elaborate in the way of a formal education) he built an organization and a personal reputation that is now known the world over in terms of both creative musical performance and musical scholarship—a rare combination indeed!

A most compelling ingredient in his success (and the only grounds on which I can justify using this space to talk of him) is his ability to get people to listen. In the concert hall, on discs and tapes, and through broadcasts he juggled esoteric sounds with such a keen sense of their properties that he created a new kind of sound consciousness for a whole generation.

He was Noah Greenberg, founder of the New York Pro Musica, conductor, enthusiast, friend. His sudden death, as this issue goes to press, is a loss (even putting personal feelings to one side) that will never be replaced.

The fact that the sounds he worked with were often those of musical instruments whose very names were known only to musicologists before Noah reintroduced them suggests a pretty rarified academic sort of a life. Not at all. He was a man who loved sound and had an intense appreciation of its qualities—particularly, of course, the sounds of Medieval and Renaissance music.

The Gusto he brought to everything he undertook infused his music-making with a vitality that had been unknown in this sort of music. That was what made audiences sit up and take notice. His enthusiasm transmitted itself even through the "Pro Musica's" recordings. And coupled with a dramatic flare for playing one sound against another, it kept his hearers really listening—listening with everything they had, not just sitting through the music in the hope of being amused.

There is certainly no audio man alive who could not have learned something from knowing Noah and seeing him at work. (To say nothing of music men. The fresh air he let into "old music" is reflected in every new recording from that repetoire that gets issued—and nowadays, they're legion.)

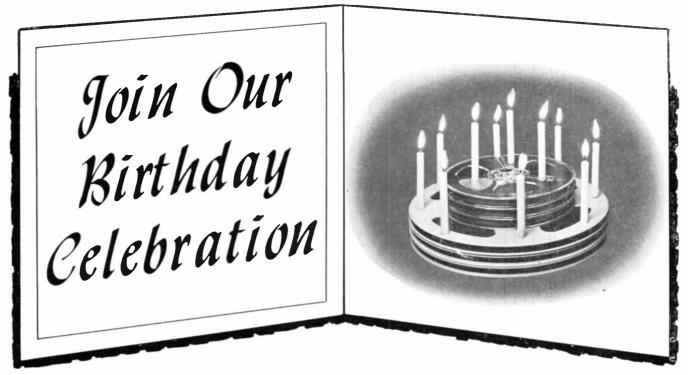
It may sound like an exaggeration to credit him with creating a market for us, but it's not. Perhaps Leopold Stokowski (often honored as an elder statesman of that elusive realm where audio and music overlap) is the only man alive who has as an individual done as much as Noah Greenberg to make sound meaningful and desirable to the buying public.

An index of how great his success really was is the growth of the New York Pro Musica itself. In the beginning they were just a group of individuals, gathered together by an ex-merchant seaman with a profound admiration for composers like Gesualdo and Frescobaldi, whose music he had borrowed from the library as a boy. The reason Noah had gathered them together was characteristic: he wanted to hear the music, and the only way to get the sound was to get the musicians.

Barely a decade later, the Pro Musica was the delight of audiences on four continents, a recipient of aid from Rockefeller, Ford and State Department funds, and producers of the only longrun Medieval music drama of modern times: The Play of Daniel.

That's a record you're not liable to see matched in a hurry. But then Noah was a man you're not liable to see matched-ever.

---R.L.



HERE ARE SOME OF THE REASONS TO CELEBRATE

- Viking introduces the first low priced high fidelity tape transport -the FF75 with flutter-filter belt drive. 1954 Unsurpassed in simplicity, thousands of these operate in homes, schools . . .
- 1955-1956 Viking adds component type record/playback electronics consumers can "build" a tape system. . . Debut of half track stereo . . .
- 1957-1958 Viking inaugurates tape cartridge handlers for broadcasting and background music. . .Leads way to quarter track stereo with new two motor transport Model 85 . . .
- 1959-1960 Viking originates automotive tape cartridge tape player with AUTO-TAPE 500. . JManufactures complete language laboratory line. . .Introduces the first "stereo compact". . .Expands to large reel tape transports, Model 95 . . .
- 1961-1962 Viking designs new concept in automatic, remote controlled language laboratory largest single system, 210 units, installed . . .
- 1962-1963 Viking presents compact three motor industrial tape transport Model 230. . .All reel-to-reel equipment redesigned for hyperbolic heads. . .
- 1964-1965 Viking goes solid state with professional, wide band, modular record/playback amplifiers RPII0 and RP120. . .Introduces most versatile, low cost tape duplicating system series 235. . .Markets reel-to-reel long play background music Model 225 . . .
- LOOK FOR EXPANDED CONSUMER PRODUCT LINE IN BOTH LOWER AND HIGHER END. . . NEW 1966 CONCEPTS IN EDUCATIONAL EQUIPMENT. . . NEW DEVELOPMENTS IN SOLID STATE.

JOIN OUR CELEBRATION - THIS YEAR, NEXT YEAR, EVERY YEAR - WITH PROFITABLE PRODUCTS FOR CONSUMERS, BROADCASTING, EDUCATION, BUSINESS AND INDUSTRY.



CANADA; Alex L. Clark, Ltd., 3751 Bloor St. W., Issungton, Unitario
Electro Tec Marketers, Ltd., 1624 W, Third Av., Vancouver, British Columbia
CENTRAL & SOUTH AMERICA:ManRep Corp., P.O. Box 429 N, Miami Beach, Florida, U.S. A,
OVERSEAS EXPORT: International Division Viking of Minneapolis, Inc., 9600 Aldrich Av. S., Minneapolis, Minn., U.S. A.



IN RETROSPECT, WE MIGHT CALL THEM

THE CRITICAL YEARS

When High Fidelity TRADE NEWS first appeared, our industry was just beginning to be swept into a revolutionary development. Stereo-like many developments in the past (including the introduction of electrical recording itself)—looked like it might swamp us for a while; but instead, it carried us toward a greater acceptance in the market place than components had ever before enjoyed. We have been on hand throughout this unfolding of stereo high fidelity. So, to begin Volume Ten, we present a family album of these, the Critical Years.

"Pre-Recorded Tape Breaks the Price Barrier," "Goody Plans Discount Outlets in Major Cities," "Market Survey Shows Hi-Fi Boom," "Sound Successes; Harvey Radio Company.

These were among the headlines of the very first issue of High Fidelity Trade News which rolled off the presses a scant decade ago.

As we move into our 10th year, we'd like you to join us in a backward view of what happened in our industry; to check on what sort of progress was made; to note "milestone" stories on people, products and events; and, perhaps, to get ideas from what happened as to what might happen in the decade ahead.

Our editorial in the January, 1957 issue. Volume One, Number One, said "The manufacturing and retailing of high fidelity equipment is a business ... not a hobby or avocation ... as more than a few manufacturers have learned to their sorrow."

Hi-fi is still a business; but is now Big Business, touching a vast market. Some of those who entered it as a hobby or avocation, failed; others managed, grew, and succeeded. The latter approached hi-fi as a true business, were financially prepared to weather a rough starting period; they put forth the right kind of energies; and their philosophy was to produce and sell a fine product.

Most of those who made the grade are with us today. Their names were on the scene back in '57, are with us as we push toward '67, and are likely to be around at the end of the next decade.

-Continued on next page

ONCE UPON A TIME

IT ALL BEGAN with a picture of Barbara Eden, our cover girl for the first issue of High Fidelity TRADE NEWS. That's the issue that she's holding in this picture, reprinted as it appeared in an early issue, with it's original caption.



TIME OUT AT THE INSTITUTE-SPONSORED LOS ANGELES SHOW is taken by Avery Fisher, IHFM's Chairman of the Board; the show's official hostess, Barbara Eden; and Institute President George Silber.

MARCH, 1957



Report On Stereophonic Sound

ESTIMATED HI-FI INDUSTRY VOLUME



























INNOVATIONS EVERYWHERE

ONCE THE FIRST STIRRINGS of stereo were felt, the industry began tumbling over itself turning out products. Even before the commercial introduction of stereo discs, electronics and tape went stereo with the products shown above in a spread from February, 1957. Cook, a pioneer in stereo discs (remember the dual pickup spaced to match two separate disc bands?), used the Microfusion vinyl-pressing process, which was shown in operation at a New York Hi-Fi Show. And (will wonders never cease?) a process for recording pictures on tape!



Tape coming on strong; stereo bows in 1957

Among the key manufacturing names in the editorial pages of the first High Fidelity TRADE NEWS were Ampex, Altee Lansing, Magnecord, Marantz, University, Reeves Soundcraft, Audio Devices, Irish, Bogen, Scotch, Fisher and Pickering.

A "profile" story about the last of these contained a photo of president Walter Stanton, looking only slightly younger and more apple-cheeked than today. It indicated that he had been elected president of the Audio Engineering Society in 1956 and was also a member of the then Institute of High Fidelity Manufacturers (now IHF). In answer to the question of what he thought of the current hi-fi market, he replied "We haven't even scratched the surface yet. Sales? Why, you ain't seen nuthin' yet!"

The story on pre-recorded tapes was subheaded "Phonotapes aunounces tape to retail at \$2.98 this month. Stereophonic tape prices to topple soon." It noted that "Except in the New York discount market this makes them cheaper (at \$2.98) than the average LP record, although on a time basis they are still somewhat more expensive."

The story on Goody's plans centered around negotiations for outlets in Philadelphia, Atlanta, Chicago, Detroit, Cleveland, Los Angeles and San Francisco. It noted that all of these outlets including the recently opened Pittsburgh store would include hi-fi departments.

The first High Fidelitu TRADE NEWS market survey noted that "Hifi is here to stay." with 7 of 8 key markets reporting boom sales.

A first-issue story on Harvey Radio Co. in New York City discussed a second expansion of its hi-fi demonstration room opened in 1947 with 200 square feet of space. Then general manager Rov Neusch stated: "We've come a long way, but the hi-fi market hasn't even been scratched yet."

In February of 1957 appeared the first of many estimates on the size of the hi-fi industry. This one-auoting "statistical experts"-said 1957's dollar volume for the industry would be \$600 million, 1958 sales would



THE INSTITUTE BOARD during our first year of publication is represented in a meeting photographed in 1957. Standing are Joe Benjamin (soon to become Institute president), Bill Grommes, Walter Stanton, Leonard Carduner, Sid Harman, Larry Epstein, Walter Jablon and Milton Thalberg. Seated are Institute counsel Isidore Minkin, secretary Lorraine Turppa, board chairman Avery Fisher, president George Silber, executive secretary Ed Cornfield and Bernie Cirlin.

total \$900 million, and that the industry in 1965 would rack up \$1.9 billion (yes, billion).

The same issue discussed the debut of tape-recorder television broadcasts on the West Coast. The battery of equipment (from Ampex) took up at least 10 linear feet of floor space, with three console units reaching upwards of 8 feet.

That was also the year the IHFM had its first shows in Los Angeles and San Francisco, with attendances listed at 31,000 and 18,000 respectively. Admission was 75 cents. "On the whole, there was really very little that was truly new. . . . the products reflected evolution rather than revolution," our coverage stated.

At mid-year, Mercury entered the recorded tape field with two-track stereo tapes priced at \$12.95 per reel. The release, plus plans of other major record companies to enter the field later that year suggested that this stereo activity would have a healthy effect on the market. "It is a golden opportunity for manufacturers and retailers . . . and a vindication . . . No longer will they have to endure the taunts that stereo is a fad."

"Stereo Steals Spotlight At NAMM Show" was the lead headline in the August issue on a story covering the July event. It quoted one show visitor as saying, "A lot of people like hi-fi and many of them can appreciate quality differences between makes of various prices, but just as many can't. With stereo there's no hesitation. Even the greenest amateur can tell that he is listening to something new and exciting and that it is something he wants."

The same issue described "the world's largest tape plant" just opened by Minnesota Mining and Manufacturing Co., "a plant estimated to be capable of meeting the recording demands of the entire world for the next ten years." Also listed were the names of new companies expected to enter the tape field: Capitol, Columbia, Angel, Audio Fidelity, Vanguard, and Klipsch.

In October, High Fidelity TRADE NEWS asked, "Stereo Sound In Your New Car?" in one of its headlines. The article discussed the possibilities of the Cousino and Fidelipac cartridges and their applicability to an auto player unit. No conclusions were reached.

The New York Hi-Fi Show was the key subject of the Nevember issue in our first year. "40,000 Jam N.Y. Hi-Fi Show" said the headline . . . the greatest number of people ever to

attend a hi-fi show. The subhead indicated that "Stereo Steals Spotlight." Prophetically High Fidelity TRADE NEWS said: "With the hi-fi band wagon just beginning to pick up speed, it would appear that finding a suitable place with adequate facilities for staging a hi-fi show is a major must on the Institute's 1958 program."

Even bigger news was being made during the hi-fi show, at the New Yorker Hotel across the street, and downtown in the offices of London Records. "For the first time in this country, workable, compatible monogrove stereophonic disc recordings were being demonstrated," said the article. The systems were the Westrex and the London.

Trade comments from various record manufacturers on the possibility of stereo records included one from Sid Frey, president of Audio Fidelity Records. Said he: "We plan to make stereo records just as soon as we can."

Stereo Tape recorders and tape were the key subjects as the year Jended. One article stated emphatically that "There is money to be made in stereo . . . But it's not a magic formula. Two-channel sound demands two-fisted, imaginative selling!"

-Continued on next page

Stereo everywhere you go — and the dominating factor in 1958 high fidelity

What's happening with the stereo disc? was a question High Fidelitu TRADE NEWS explored in its first 1958 issue, and continued to touch on throughout the entire year. At about the same time, Electro-Voice introduced its first "45-45" stereo cartridge, priced at \$19.95. Seven other firms had prototypes ranging from \$30 to \$250 (the latter with tone arm).

High Fidelity TRADE NEWS wrote in February that "the coming of the stereo discs will set off a hi-fi boom which would make the accomplishments of the past 10 years seem trivial by comparison."

Stereo was also the key topic of the LA and SF hi-fi shows. "Some 50,000 . . . enthusiasts . . . got a crib-

side view of high fidelity's new baby .. 44TRADE NEWS. Dealers said CU had . . the much publicized but rarely heard until now, stereo disc." The disc(s) in question was Audio Fidelity's first release, ready for shipment in March.

Irving Rossman went on record at this time with the observation that the stereo disc would broaden the market for stereo by introducing new millions of people to this outstanding method of home entertainment. "Tape and tape recorders will find an expanding market as these people learn about stereo and seek the ultimate in listening pleasure," he said.

An article in Consumer Reports

entitled "FM Tuners-Let The Buyer Beware," touched off a series of responses printed by High Fidelity

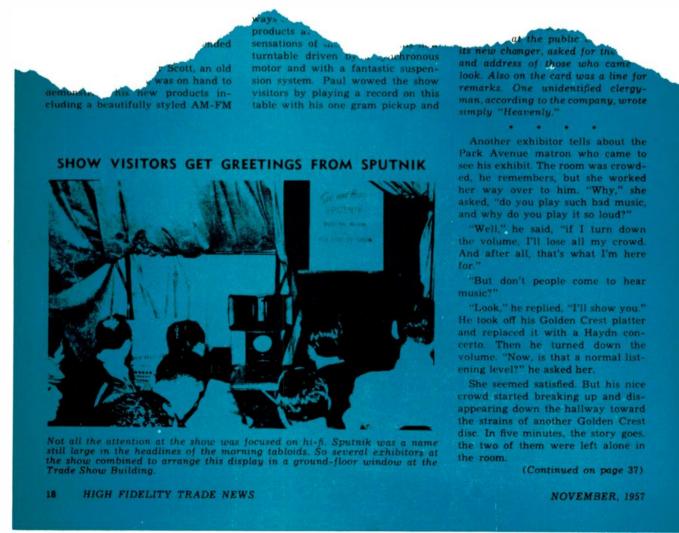
"established itself as an authority with the upper middle classes who are hi-fi's best friends.'

The Magnetic Recording Industry Association made news when it displayed throughout the Los Angeles Hi-Fi Show a batch of historical tape recorders, including the first German tape recorder brought into this country. It weighed 300 pounds.

Macy's ran a one-week demonstration of Audio Fidelity's new stereo discs. The store, we reported, was taking no chances on the stereo disc cutting into monaural sales. It was carrying no equipment to play them back, nor was it giving stereo on records any real promotional push.

Columbia in April announced it

IT SEEMS SO LONG since we considered man-made satelites enough of a novelty to have prime promotion value. And yet, in January of 1958 the U. S. A. had yet to launch its first! Signals from Sputnik (I), although unintelligible, drew crowds.



would soon be on the market with a stereo disc. Victor and Capitol were rumored to be readying stereo discs for fall distribution. Portable phonograph manufacturers "from Admiral to Zenith" announced that their fall lines would be equipped for stereo, most utilizing the E-V cartridge.

First reactions and a good deal of doubt

The first market story on stereo records and playback equipment sales appeared in May. The responses ran from "Nil" (Chicago), "Reluctance" (New York), "Wait and See" (Los Angeles), to "The Stereo disc is going to give the hi-fi business a real shot in the arm" (St. Louis), and "Sensational!" (Boston).

A "first" was scored by Sherwood Electronic Laboratories, Inc. in 1958 when it announced that its hi-fi products would be protected by fair trade agreements in 45 states.

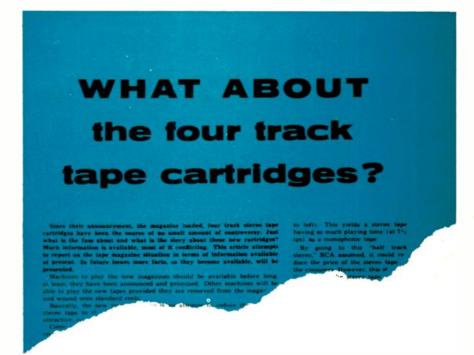
Four-track stereo hit the industry in May, when Ampex revealed it would begin immediate shipments of machines equipped for this medium. At the same time, Ampex announced availability of 4-track head assembly conversion kits.

Phillip Gundy, v-p of Ampex, also revealed that the company had a couple orders for video tape recorders for home use. "The price is high..." he stated, then theorized that it might be as long as 10 years before the unit became a reality in the home (at a price tag of \$300 to \$500); but, he asserted, "It will become a reality."

In July, RCA introduced at the NAMM show another form of stereo tape—the four-track cartridge. Also shown were players for such cartridges by RCA, Pentron and Motorola. RCA said that initial response would come from its more sophisticated customers.

Reacting to widespread doubletalk on the subject of stereo, Leonard Feldman, president of Madison-Fielding Corp., began an article in the August, 1958 issue by saying: "At this juncture, it appears as if we are off on another chaotic binge of misinformation, confusion, and pseudotechnical gobbledook designed to embitter an unsuspecting music-loving public. A brand new phrase has been uncovered—Stereophonic Sound."

-Continued on Next Page



SOUND FAMILIAR? The cartridge under discussion in 1958 was the one developed by RCA. Despite demonstrably good results with slow speeds and four tracks on the part of Tandberg and others, the industry resisted both.

GIRLS AND MORE GIRLS promoted hi-fi shows in 1958. At right are the "stereo twins" from New York. Below is a collection from Los Angeles. Pictured at the bottom is the "portable hi-fi" worn by Ernest Van Leeuwen of Magnetic Recorders. Copy pointed out that solid state electronics were transformerless. A Minifon recorder provided source.









George Silber, past president of the Institute of High Fidelity Manufacturers, receives an inscribed clockbarometer set in recognition of his service to IHFM from President



Enrique Jorda, Conductor of the San Francisco Symphony, prepares to throw the master switch withing the San Francisco Hi-Fi Show, as Miss Jo Anzalone and IHFM Executive Secretary Edwin Cornfield look on



Industry argues on product ratings in 1959 and 1960

In September a "Year 'Round Audio Show" opened in the form of HI-FI House in New York City's Grand Central Station on the upper balcony. "The personnel at the exhibition will be trained to take an impartial view towards the equipment on display and will not suggest one brand over another," the article stated.

"New York Show Sets New Records" was the headline in a special show issue later on. With stereo the lure, 52,000 persons showed up for the six-day event. Mayor Wagner officially proclaimed "Stereo High Fidelity Week" in the show's honor.

By the end of the year dealers were involved in selling stereo conversions or stereo conversion kits to "save" existing monophonic equipment owned by their customers.

"A development of great long-range importance to high fidelity dealers is the unexpected speed with which multiplexing is taking hold among the nation's broadcasters," said the first issue of *High Fidelity TRADE NEWS* for 1959, a year which was to see an upturn in tuner and multiplex adapter sales. A 50-city spot check showed 1958 component sales had risen; disc sales below the 1957 average; high hopes for stereo; and tape sales hurt badly.

A story in February noted "The trend toward transistors is something dealers should watch closely in hi-fi products offered by manufacturers in 1959. . . . transistors are coming into their own. Industry, dealers and consumers may all look forward to reapbenefits from this in 1959."

Speakers story starts fight

Consumers Union hit the headlines again on the heels of a report on loudspeakers. A special symposium conducted by *High Fidelity TRADE NEWS* utilizing the services of nine persons—three laymen and six well-known hi-fi experts—showed that in listening tests of six loudspeakers, no significant pattern of preference was established.

In March, Consumers Union was again taken to task. High Fidelity TRADE NEWS, reporting on an editorial in Popular Electronics, noted

that PE felt CU was "presumptuous" to make recommendations without having checked at least a major part of the speakers available. CU had tested 31 of more than 500 speakers then on the market. PE's editors also objected to CU's "tone of final authority" in its reports.

"Goody Files Bankruptey" was a major headline in April.

A report on the IHFM West Coast shows indicated that one of the main features was the displaying of small speaker systems by many manufacturers. Attendance at the SF show was 30,000, with 40,000 at the LA show.

Still another story on CU! "We have no quarrel with CR's choice of 'acceptable' unit. The subject of our concern, however, is their rejection of a number of other cartridges. . . . It is our belief that CR misled the public and did a disservice to reputable manufacturers. CR presents no proof of their findings—only opinions and conclusions."

Discounting in an unsettled market was a key subject in May, with the IHFM hitting it as an unsound business practice. "The component high fidelity industry must awaken to the peril of unsound retail pricing practices if it is to maintain and expand its current pattern of profitable operation," said Joe Benjamin, president of the group and also of Bogen-Presto.

In "Commercial Soundings, High Fidelity TRADE NEWS noted; "Eight major producers of tubes are joining together to form Electron Tube Information Council to slow down stampede to transistors."

Later in the same issue (May, 1959) there was a story on the formation of Transistor Electronics Corp. (T.E.C.) by Bernard D. Cirlin and a group of Los Angeles investors. The firm would make and market a complete line of mono and stereo tuners and amplifiers. (The first ad on these products appeared in October.)

The biggest headline in any issue of High Fidelity TRADE NEWS to that time was the one in the June issue. "MRIA backs 4-track, 7½ ips reel-to-reel", it read, with a subhead exclaiming "At last, an industry position on tape!"

Facing this story was one noting that 3M-Columbia confirmed the development of still another cartridge system, but saw it as arriving "in the distant future."

The comment of Irving Rossmann, former MRIA president, to the news of the 3M-Columbia device was "In years to come the cartridge may well become the new medium and the new standard in the magnetic recording industry, but that will not be today, tomorrow or next year."

The same issue carried a story with long range implications to the industry: E. J. Korvette had entered the audio components retailing field with Harold Weinberg and David Rothfield as buyers. "Korvette chain operation plans to reach mass market with heavy advertising . . . service . . . sales training . . . and maintenance of prevailing component hi-fi prices," read our subhead.

Despite its "beatings" by audio publications, CU invited High Fidelity TRADE NEWS and other members of the hi-fi press to visit its facilities in mid-summer. "Visit left little doubt that CU has equipment, personnel for doing adequate testing job. But feeling still remains that reports of hi-fi equipment as published in Consumer Reports are arbitrary evaluations of test results" said our "As We Go To Press" column in July.

Announced at this time was the formation of United Stereo Tapes by Ampex Corp., with a roster of over a dozen producers of recorded tape. Herbert L. Brown, v-p and manager of Ampex Audio and head of the new division said: "The stereo disc has created a tremendous opportunity for stereo tape."

In-fidelity?

Reporting on an article in the latest issue of *Confidential*, *High Fidelity TRADE NEWS* in August noted that the piece called stereo "an artificial, contrived sound made strictly to lead you into thinking your present recording equipment is obsolete."

Hardly three months after Korvette entered the audio component retailing field, came the announcement that Masters discount centers in the New York City area would also handle components-via leased departments operated by Hudson Radio and Television Corp., one of the city's largest component dealers. High Fidelity TRADE NEWS speculating on the Korvette-Masters situation said, "If they succeed, they may make many people component conscious. This would expand the market and might conceivably create future customers for other dealers."

40 HIGH FIDELITY TRADE NEWS

Continuing concern with CU was evident in a piece saying "The October issue of Consumer Reports will tell readers what's acceptable and not acceptable in turntables, record players and record changers . . . As usual many readers will take the report as Gospel. They will be trooping into your store demanding equipment with high CU rating. By all means service their requests—if you believe this is the equipment they should have. But don't let CU run your business!"

The importance of the visual qualities of hi-fi inspired the IHFM to come up with a theme of "Decorate Your Home With Music" for the 1959 New York Show.

The EIA asked for an investigation of the growing imports of Japanese transistors and other semi-conductor products and a determination whether they threatened American security.

"It's The Coliseum in '60" read a headline in the November issue. "We have graduated from the hotel type show to the better rooms at the Trade Show Building, and now we have reached the point where we will have to move to the Coliseum," said Joe Benjamin, as IHFM prexy. The show tallied an attendance of 46,000, compared with 52,000 the previous year.

High Fidelity TRADE NEWS rounded out the year with an issue devoted largely to tape recorders, on the strength of a "rebirth" of the industry due to the advent of four-track stereo.

1960 begins

"As We Go To Press" in January, 1960 noted that big speaker systems were coming back. Moe Morris of Altec predicted that public taste was shifting from compact "space-problem" speakers, and proposed the industry emphasis should be on selling the ultimate in sound.

The same column came up with a new use for tape recorders (one not designed for repeat sales): a California youth taped a last message on his recorder just before swalling a lethal dose of potassium cyanide crystals

Industry concern about hi-fi shows was expressed in dissatisfaction with the current methods of exposing wares of the industry to the public. Dealers, reps and manufacturers all joined in the growing chorus of complaints aimed at the show concept as it existed. Among faults found were the high cost of displaying at the shows, the confusion they create in consumers' minds, the waste of time they



THIS WAS THE RESPONSE to queries on speaker preferences that led High Fidelity TRADE NEWS to the conclusion that no signicant pattern of preference was established, a repudiation of what was seen as arbitrary listings on the part of Consumer's Union. Test was set up for us by Arthur Salsberg of Capitol Records, now editor of AUDIOFAN Magazine.

represent, and the timing of such events. Despite babysitting facilities, free drawings for equipment, heavy promotion, continuous entertainment, attendance at the San Francisco show dropped by some 4,000 people.

In January, 1960, Philco entered the audio component field with an AM/FM tuner, stereo preamp, and two speaker systems.

In February, High Fidelity TRADE NEWS published a major story involving the "thorny problem" of private labels versus advertised brands, with v-p Lew Kornfield of Radio Shack arguing in favor of them, and Jim Carroll, audio manager at New York's Harvey Radio sticking up for advertised brands.

Ray Pepe, as its president, defends IHFM

"Which way for the IHFM" was the big question in March, asked of Ray Pepe, newly-elected president of the Institute. In answer to criticism of the organization, he said existence of the group was imperative; "The IHFM also serves as a symbol to ourselves that we are an industry. It is also the market place, where we can exchange ideas, debate and work together. Without such a market place, it would be that much more difficult to make cohesive an industry that

certainly needs to be pulled together. The future of the IHFM will be assured if we look at the organization just that way."

He put industry volume at about \$50 million. He said a previous estimate of \$300 million included some pseudo component packages and other package equipment which was not really high fidelity.

The year's IRE Show was even more significant than usual: MMM unveiled the new tape cartridge system operating at 1% ips. (the one developed by CBS Laboratories), and Armour Research Foundation showed a new compatible automatic cartridge player whose cartridge could be played on reel-to-reel machines.

Ubiquitous CU made news again . . . this time as defendant in a suit for \$150,000 brought by Hartley, who charged the testing firm with "false and defamatory statements" about a Hartley speaker.

The May issue carried an IRE forecast of things to come. Included was automobile stereo, utilizing three speakers.

The audiovisual field got considerable attention in June. "A growing field with b'g profit potential for the high fidelity dealer," it said, and urged audio dealers to get out and hustle, beginning with local schools.

At this time RCA, exponent of the cartridge system, brought out its first four-track tape release, consisting of 17 titles.

-Continued on next page

Early 60's establish growth

In July a major demonstration of stereo sound was held at Grossinger's, famous Catskill mountain resort. Involved were Bogen, Dual, Fairchild, and University. Dealers were told that the experiences gained in developing the promotion would be made available for them to act upon. Dealers were urged to run similar promotions in their own areas, on a smaller scale.

August marked the entry of the Ampex brand name on blank recording tape made by Orr Industries Co., a division of Ampex Corp. It also marked the merger of two major New York City audio component firms—Terminal Electronics and Hudson Radio & Television Corp.

Although attendance at the New York hi-fi show in September was down, High Fidelity TRADE NEWS reported a mood of "cautious optimism" prevailing, in marked contrast to the pessimism expressed widely at the previous year's show.

November's issue announced the opening of Korvette's second store, and the offer of a two-year store warranty by Korvette on components the company sold.

'61 & multiplex

The first quarter of 1961 was relatively quiet with little of excitement taking place on a broad level.

Things perked up a bit with the news that 43,700 persons attended the first combined hi-fi and home show in San Francisco at the Cow Palace. The feeling was that the Home Show brought in people who might not have come out just for a hi-fi show. The concensus of exhibitors was that it was a buying crowd—not a bunch of "literature collectors."

In May, 1961, we reported on the reaction to its first Annual Sound Industry Directory Issue, 146 pages long, listing over 1,000 products. More than 250 dealers, reps and manufacturers had sent congratulations.

Also reported was the decision by the FCC authorizing multiplex stereo broadcasts by FM stations after June 1. It permitted stations to use, with modifications, systems proposed by Zenith and General Electric.

The advent of multiplex was hailed by the IHFM as the greatest advance since stereo discs, as something that would "revolutionize the high fidelity industry." Dealers in four key cities reacted with a mixture of enthusiasm and concern about the confusion they felt was bound to result. FM station WKFM, Chicago, went on the air June 18th with what was believed to be the first commercially-sponsore! multiplex broadcasts and one of the first regular schedules of multiplex programming.

The Music Room in New York's Grand Central Station, leased by Acoustic Research, was bought outright by the loudspeaker manufacturer in 1961. It was also in 1961 that Stephens Trusonic, Inc., launched a 10-year-plus warranty plan on its loudspeakers.

One of the first importers (if not the first), Kenwood Electronics, entered the United States market in 1961 with a line of Japanese-made audio components—an AM/FM/FM stereo tuner list priced at \$299.95.

The September 22 issue of *Time* magazine ran an article called "Stereo, Left & Right," carrying the definition of an audiophile as "A music lover who handles recordings at edges only." In general it ridiculed the hi-fi industry and made several other misleading statesments. *High Fidelity*

TRADE NEWS in its October issue carried the text of an open letter to Henry R. Luce in reply. It posed the questions "Why give them (Time readers) fiction, instead of fact? I must admit the fiction is entertaining, garbled as it is in the language of Timespeak, but is it fair to your readers? . . . Is it too much to ask that Time meet its responsibility to its readers by reporting the facts accurately and abstaining from peddling misleading or false information?"

"Record paid attendance (25,000) at four-day Show offers conclusive proof that the public interest in FM multiplex stereo is real, widespread and tangible. High fidelity component industry is optimistic that this great interest will be translated into sales at retail level." So said *High Fidelity TRADE NEWS* in a headline in October, 1960.

At this point the IHFM started a drive to get audio dealers to organize on a local basis, offering to aid them via a special committee set up for this very purpose. One of the advantages pointed out by prexy Ray Pepe was the upgrading of the collective image of dealers banded in a group.

Imports up in '62

In the first issue of 1962, *High Fidelity TRADE NEWS* explored Japanese audio component penetration

ONE INDEX of the ever growing sense of identity within the high fidelity component industry was the promotion campaign launched early in 1962 by the Institute (them still called the IHFM).





AMB empirities some to by per state over our de breeding in et en empirica. Within 48 house of surveyer, the lambitus office or surveyer, the lambitus office on the empirical or hand-one and task-original or the empirical or th

the appearity only of this phore of area on which the prospect tob his count layout. The copy that he county or the copy that he complete the check, if products in which he is parvisiterated, and amove a few



INDUSTRY PROMOTION UNDER WAY

The HWM Industry Pounts
Program, most well under ways
for remaining transfelly in Nov male
temperature, to developed to farentle
solvethead qualita disalars as well as
makenty as whethe.
"This layouts will not occur a

minimp at a whole.

"This launch will not over antemate-ally." Arthur M. Lotters, clustcost of the ENO M. Promotion, Comtifier and vier provided gossition of different industries. Exp. explained to MILM DISCLETY TRADE NEWS.

"Less that the absenting plasm of the programs is a reality, it is easiersery for deleter to enderstand distriction of the plant of the plant of the Program-Southern observation in which is at the final fevel, assembling to those own portivation oblimits and appears." "The above billion of the trype of the the public why he is the type of hour high fulfilly uniquizates in his store.

On a sammed hum, the 1007th air verifing empacins in archive our investigation of the content of people hum arrange the general public and proporting them her three dealer efforts. The propose is emission not at the confinemal helicopies in companyation, but at the waves otherwise good strain reproduction and whe, and new, more our have harmen.

Everyone who stude to the observation of our papers of the bottom of our papers of the bottom of our papers of the bottom of our papers of the students of the



The dealer binned? must pe of to the public why be is : ye of dealer the BERK is to g about" . . . Arthur M. C. ain, shairream of the proon animalitie. corporately. "Are there chapter", on Whan the prespone has could the builder. The hose an elementary homeulay of companies high fideling—the event of the contract of the country of the completed others, with mobile he with the dupler. The decides, onewide he dupler. The decides, onewhile, has come consequent or the tree and ensuring them to make the man of the contract of the rapid that he will be the contract of the rapid that he will be the contract of the rapid that he will be the contract of the rapid that he will be the contract of the rapid that he will be the contract of the rapid that he will be the contract of the c

The first ads out in Time and the Vew Yorker or the and of Suprember and in Administ, Hargers and Page for Mechanics in Normalyer and have mentioned to appear more a mental is each magnetic All the other on mid-mering on (Combined on page 20)



42 HIGH FIDELITY TRADE NEWS

JANUARY, 1966

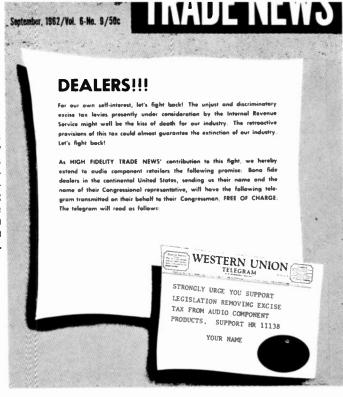
into the United States market. The findings pointed up that aside from transistor radios, about 1 to 2% of the average New York audio store's merchandise was Japanese, where recorders were not plugged. About 9 to 12% was the average in stores promoting tape recorders.

The recent death of Isidor Goldberg, founder and head of Pilot Radio resulted in the sale of the company to Jerrold Electronics Corp., with Sidney Harman named president. This was Jerrold's third acquisition within the year. Harman-Kardon was the first, Technical Appliance Corp. (TACO) the second.

"Consumers Union has injected itself into the turntable-automatic record playback controversy . . ." noted March's "As We Go To Press." CU said that "those who demand the top in fidelity should not modify their preference for the single-play turntable . . . listeners to whom the best fidelity is not essential are likely to find the high-ranking changers satisfying." Dealers were warned not to use CU as a selling tool. "In other words, when a dealer uses CU as a recommendation, he in effect tells his customer that CU, and not the dealer, is the ultimate expert."

In April's "How's Business?" HFTN noted "Tape recorders are among the electronic products with 'greater potential than any other major consumer product except color television'." Significantly, it was about this time that

A CALL TO ARMS was sounded by High Fidelity TRADE NEWS in this cover from the September, 1962 issue. Telegrams fighting excise tax on components were sent to Washington on behalf of dealers from all parts of the country.



Ampex dropped consoles to concentrate on tape recorders.

Row on the Row

World-famous Cortlandt Street, "Radio Row" to anyone in audio, was threatened as an entity in 1962 when the Port of New York Authority revealed plans to build their \$270 million so-called World Trade Center.

The struggle is still going on 21/2 years later.

An interesting tidbit was uncovered at the 50th annual IRE convention John E. Thompson, president of Reliable Meat Packing Co., reported that electric currents at audio frequency are applied to a meat animal's skull to render it unconscious and insensitive to pain before it is slaughtered. He said the best frequencies for rendering cattle senseless lie between 200 to 2,000 c.p.s. "This corresponds roughly to the response of many packaged home music systems masquerading as high fidelity," it was noted.

Leonard Radio, a fixture on Radio Row for many years, revealed during the summer of 1962 that it was planning to open a store at 46th Street and Sixth Avenue. Speculation had it that Leonard had one eye on the possible demise of Cortlandt Street, but the store denied this.

Two reprieves were reported on in the October issue. Ray Pepe, IHFM president, revealed that no retroactive excise tax would be assessed against dealers, and stores on New York's Radio Row were informed they could expect to conduct business at their current locations for the next two years.

"In midst of optimistic predictions about audio business, one competitive factor looms on horizon. For the first time, color television is expected to make formidable bid for home entertainment dollar."

At this time the IHFM shortened its name to the Institute of High Fidelity-IHF.

-Continued on next page

A THUNDERBOLT, delivered by that august Jove, the Port of New York Authority, struck Radio Row, the cradle of our industry in the summer of 1962, igniting fires that still burn.



HIGH FIDELITY TRADE NEWS 43

Is a meaningful definition possible? Our industry position:



A jake or a menoce? . . . Some cor







This is "high fidelity"?

(THE EIA DEFINITION)



HICH FIDELITY TRADE NEWS 17

THE FIGHT OVER A DEFINITION of "high fidelity" was more than just a matter of pride in the component industry. Also at stake in the background were possible FTC inquiry advertising claims that in those days seemed to put package electronics on a par with components. IHF answer: require specs on the chassis. Also involved was the question of which products should rate excise tax.

What is hi-fi, anyway?

As 1962 closed, the industry was still hassling over a definition of high fidelity, with the industry concerned that a tentative definition by the EIA was "loose and all-inclusive," far from the kind of definition that the component manufacturers would consider an adequate standard. The controversy continued to gather steam in 1963, until it was predicted that the FTC might drop the whole matter of obtaining a definition satisfying to all.

Home video tape recorders got a little closer to home with the introduction by Ampex of a portable television tape recorder weighing 130 pounds and costing "less than \$12,-000.

To spiff or not to spiff? That was a question High Fidelity TRADE NEWS tackled in its April issue. The answer: The short, quick dollar is little help in the long, hard pull, salesmen said.

The growing audio component mar-

ket finally got to be too big a temptation for Sears in 1963 . . . the giant retailer got into the act with a "deluxe" system priced at \$330.75.

Roberts invaded St. Louis in late August to spread the gospel of Cross Field in its Model 770 tape recorder. This was the earlier starting point for 3M Co. with its Revere cartridge system. Roberts intended to give the Revere machine a run for its money with the Model 770.

The 3M Company dug deeper into the recording business at the end of 1963, revealing that it had made agreements with ABC-Paramount and Westminster to duplicate and distribute their recorded output in tape cartridge form.

The effect of component systems from package makers was one of the first subjects tackled by High Fidelity TRADE NEWS in 1964. General Electric, Magnavox, Westinghouse these were key names "muddving the market". Two conclusions were drawn: Component flexibility had an appeal to the general public, and the public preferred to make a simple decision. "Audio firms have concentrated on sound purity, but have wrapped the concept in technical jargon that frightens many potential customers away."

A new cylindrical speaker system called the Grendier debuted in classic surroundings-Carnegie Recital Hall. The maker: Empire Scientific.

The Singer Company, giant sewing machine producer found the hi-fi industry appealing enough to buy into the market in early 1964, purchasing KLH.

A much-publicized home video TV recorder, Telcan, got big play in the February issue. Expected price in the market place, \$160, plus a camera for home video productions at around \$200. Tradesters reaction was that the system would never make the grade. on up to "It'll revolutionize the industry.'

The audio field was getting a little edgy about this time, with the pronouncement from Harold Weinberg. audio equipment buyer at Korvette, that the discount chain would soon top Allied Radio's sales, plus reports that Macy's was expanding its audio components departments to other stores via the Terminal-Hudson concession route. And that more department stores were eveing the audio components field.

Edging into the Herald Square area to give Macy's a bit of competition, Audio Exchange opened a department at Willoughby's, major camera product outlet, two blocks from Macy's.

Solid-state made big gains in 1964, with ad after ad in the May issue plugging the new glamor girl. Bogen, Fisher, Harman-Kardon, Scott . . . all in the battle.

Another home video recorder was announced by Fairchild Camera and Instrument. Price: about \$500. Rumors buzzed of still another in the development stage at IIT Research Institute.

Marantz sold a controlling interest to Superscope, importers of the Sony recorder line. Saul Marantz to remain president, but with more operating monies at his command.

John Koss at mid-year decided to obtain control of Rek-O-Kut. At the same time Shure decided to get into the package phono field. And Ampex revealed plans for franchises on two brand new series of tape recorders aimed at the middle market, and showed a series of new blank recording tapes, some formulated for slowspeed use. A new name in tape recorders, Oki, appeared on the scene.

industry at mid-summer mourned the passing of Harvey Sampson (Harvey Radio, New York) one of the pioneer retailers who helped build the hi-fi industry. And another great name in hi-fi, Ray Pepe, was stricken in mid-August.

West Coast dealers were looking forward to a new hi-fi show-in San Francisco. (A subsequent issue reported it to be a great success, with 12,000 paid admissions.)

In Los Angeles, down the pike, a lot of activity was reported in Stereoas-you-drive, by two companies-Muntz Stereo-Pak, and Autostereo Corp. A good many tradesters still tended to relegate them to the category of novelties-along with the Acoustica lampshade speakers, an innovation of 1964.

Solid-state stole the stage at the New York Hi-Fi Show, with manufacturers openly heralding the demise of tube equipment in the near future.

At year's end the EIA came up with statistics; The average selling price of tape recorders of those counted by the organization was \$103. Japan was said to have 77% of the market in terms of units, and 37% of the market in dollar terms.

A gloomy note sounded as 1965 got under way. Some Los Angeles dealers who carry cabinetry with their components were put under the Internal Revenue Service magnifying glass, to determine the extent to which they were liable for tax payments-at a rate of 10% on gross cabinet sales.

Recorded tapes at 3¾ i.p.s. drew pro and con statements from producers and dealers surveyed by High Fidelity TRADE NEWS. Although admitting that the sound was not the greatest, those checked indicated there was a place for such tapes. Needed, considerable promotion.

Pilot Radio shifted hands again in 1965, this time to Emerson Radio & Phonograph Corp. And that year the name Revere vanished from the tape recorder scene, replaced by the Wollensak designation, as part of an internal shift-about by 3M Co.

Rumblings about 8-track stereo were heard at this point, with product scheduled to come from Lear let Corp.—an airplane manufacturer.

The NEW Show, new successor to the old Parts Show, dominated the May issue.

A new tape-Dynarange-was announced by 3M, custom-tailored to the problems of slow recording speeds.

July's "As We Go To Press" noted that the addition of tape decks by Motorola and Zenith had made the tape recorder "officially part of the American way of life.'

The biggest news at the Big NAMM show in midsummer was the home

video recorder, as shown by Ampex, Sony and Panasonic, at around \$1,000. and was an even finer showcase for hi-fi and related products than before.

Another "Radio Row" in the making? Bright's with branches on Cortlandt Street and Madison Avenue, opened a new store on 45th St., along with Advance. The locations: directly across the street from Lafavette Radio.

An old-timer, long missing from the scene-Irish recording tape-reappeared in September.

Despite recent repeal of the excise tax, the IRS told High Fidelity House, Pasadena hi-fi retailer, that it would have to pay retroactive excise taxes on systems "manufactured" by the store. The industry was stunned by this announcement, especially in view of expectations that the repeal would end the tax brouhaha.

The IHF revealed that it was defending via attorney Isador Minken, two mid-west retailers who were also in the same boat as High Fidelity House. Lee Kuby of Empire Scientific Corp. urged manufacturers to presure Washington to end the dealer auditing and what he called "a nonsensical and excessively costly way to collect taxes.

Our next-to-last issue reported considerable activity in the auto stereo field, via a merger between Autostero of California and TelePro of New Jersey and the proposed entrance of Ampex into the field via its Orrtronics division. Also reported at this time was the entry of General Recorded Tape into the reel-to-reel recorded tape field.

A SIGN OF NEW MATURITY in the industry in the last couple years is the growth of interest in overseas markets. The late Ray Pepe was a champion of export market development.



WHAT DO THESE NAMES MEAN TO YOU?

One index of the degree to which the high fidelity industry has changed in the last decade is the fact that so many of the names and terms have changed. Many of the ones you will find below were common then, but have disappeared altogether now. Some are still well-known, but create a very different picture now than they once did. Others could easily be added from among those names that have only moved to the front in the intervening time.

How much change has there been in ten years? Try these:

Acrosound Audax bass couplers Brenell **Brooks Browning** Collaro **Emery Cook** Murray Crosby ESL G.E. Glaser-Steers Grav Fairchild Karg L.E.E. Catenoid speakers Madison Fielding Meisner Metzner Stromberg-Carlson Orthosonic output transformers Pentron Radio Craftsman Sargent-Rayment 6L6's staggered 2-track stereo stereo adaptors Stromberg-Carlson Paul Weathers Webster Williamson circuits

Today's hi-fi market requires today's selling techniques

Here is a primer for the effective selling of hi-fi components, including advice gleaned from some of the country's most effective merchandisers.

Get the Facts

Before the audio salesman begins to talk product, he should find out some basic information about the cus-

You should discuss initially only that which is of interest to your customer. You will find that there must be a complete meeting of the minds before you can successfully demonstrate, or sell, any equipment.

In sizing up the customer, the salesmen will need to know:

- 1. What the customer wants to accomplish with high fidelity.
 - 2. What is his budget.
- 3. What provision he has made for placement of components in his
- 4. What, if any, stereo furniture is being considered or is anticipated in the near future.

Of course, a direct question about how much the customer wishes to spend will normally result in a relatively low figure. Often he can be traded up, but in doing so, the salesman is in danger of pricing him out of the market. However, here is a subtle way of discovering how much the customer can afford, without seeming to be too inquisitive.

The salesman can open a discussion on amplifier power requirements and component flexibility, pointing out that it is possible to attach as many speakers throughout the house as may be desired. The salesman explains that he brought up this question in case the customer should desire to add speakers in the future. If so, he will need sufficient power in the

Then, certain questions can be asked: How many rooms do you have? How large is the house in square feet?

What type of house is it? What kind of furniture do you have? What area do you live in? The answers to these questions, he notes, enable the salesman to qualify the customer as to budget. With this information, the salesman can intelligently discuss the components which will fulfill the customer's budget requirements, reducing the danger of either undersell or oversell.

Once the discussion of equipment gets under way, the salesman should not introduce too many different products, lest the customer become confused by too wide a choice. When discussing product, take him right into it as the ideal unit for his purpose. Then start to demonstrate what this product

Whenever possible during the demo. get the customer to work the controls himself. Let him feel and touch the

Use Specs Carefully

The technical specs we so proudly quote about our products can sometimes kill more sales than they create. High fidelity sales presentations have suffered as much from the indiscriminate and excessive use of technical talk as from the failure to convey that information clearly. How many prospects, eager and ready to buy-needing only gentle guidance for consummating the sale-are being provided with so much more to think about that they become less sure of themselves and put off the buying to another time?

Good selling is the ability to seek

out, recognize and understand the customer's needs and to relate the product to those needs in terms of the customer's interests. Even the presentation of technical information must be governed by these rules. It is not enough to simply recite facts and specifications and leave it at that. Your customer may not understand what it is you're talking about in which case you certainly can't reach him. Or, he may understand but be unable to relate the fact to his own experience or apply it to his own interests."

A familiar analogy does several things: 1) it explains unknown things by the use of known terms; 2) it creates vivid pictures and relates the information to the experience of the listener; 3) it makes the information believable, acceptable; 4) being in the nature of a revelation, it stimulates further interest and makes the listener eager to hear and know more; 5) it puts you and your customer on the same frequency, so to speak, so that your message comes through loud and clear; 6) it gives your prospect the necessary confidence in you and in himself to make the positive buying

Here is one example of how you can use the familiar analogy. Let's say you are dealing with a customer who wants hi-fi, but doesn't yet know what components are all about. Your approach might run like this:

SALESMAN: If you don't mind my getting personal, take the clothing you're wearing. You wouldn't think of having the suit manufacturer decide what color or style shoe you should wear-or a pre-selected tie and shirt that is part of the suit ensemble. Can you imagine a woman not having the freedom of choice in selecting the purse or shoes that she wants to go with her dress?

CUSTOMER: I think I know what

SALESMAN: In other words, when you purchase "component" hi-fi equipment you are exercising freedom to choose a music system that suits your ear and pocketbook.

You have the freedom to choose, with our help the type and quality of sound that suits you. After all, you are going to live with it.

Why not select what you like?

CUSTOMER: Well, how do I begin? SALESMAN: Easy. The basic component hi-fi system you select is made up of a speaker, amplifier, tuner and recrod changer. Remember, just as you have choice in picking a suit, shoes, tie and shirt, etc., you do the same thing here.

-Continued on next page

Institute president salutes our tenth year, talks of IHF plans

HAVING FOLLOWED the progress of High Fidelity TRADE NEWS with interest since 1957, when I was privileged to serve on the editorial panel, I'm happy to congratulate this valuable publication on the start of its tenth year.

I'm gratified to note that, since its inception, High Fidelity TRADE NEWS has kept pace with the growth of our industry in every way. This is no small accomplishment, considering the fact that the component high fidelity industry has quadrupled its annual sales from \$25 million in the mid-1950's to an estimated \$115 million in the year just past. Even rosier prospects brighten the sales horizon for 1966.

In fact, it seems reasonable to assume that component equipment manufacturers will grow faster than the economy itself for the next few years. With two-channel stereophonic systems installed in fewer than half of all consumer homes now equipped with high fidelity. the market is wide open for a major breakthrough in the months ahead.

This major growth area is sure to be increased even more by the initial purchases of customers, who will be buying high fidelity components this year, for the very first time.

Surveys show that thousands of first-purchase component customers are created through shows, such as the upcoming Los Angeles High Fidelity Music Show, scheduled by the Institute of High Fidelity, from March 30 through April 3.

A significant plus for high fidelity componentry is selective programming. There seems to be a rising trend among home owners toward hearing their favorite kind of music, when they want to hear

Video tape, the fast-growing component of the high fidelity industry seems sure to play a key role throughout the months that lie ahead. Car stereo tape recorders are also on the move. Since this tape is installed in the family car, it can properly be considered a home product related to the high fidelity industry.

These encouraging developments, plus quality publications of the caliber of High Fidelity TRADE NEWS, speak well for the present and the future of the component high fidelity industry.

> Walter Stanton president Institute of High Fidelity, Inc.

WALTER STANTON is, of course, president of both Pickering & Co. and Stanton Magnetics, as well as the IHF.



All customers have objections. Here's how to meet them.

Sales theory indicates that there are only four basic steps from the beginning to the close of a sale: Attention, Interest, Desire and Action. Each step is taken in its correct order and the sale moves along logically and easily.

Everything is smooth sailing . . . in theory. And then some practical-minded customer upsets this sales theory with a sales objection.

You know that this happens almost every time you talk to a customer. Customers resist buying. They raise objections. And, unless carefully handled, the sale goes right out the window.

We all know that the best way to win an argument is to avoid it. When you anticipate your customer's objections, you can drive home the other side of the argument. You will be presenting facts—not counter arguments. Also, you get away from a defensive position on your customer's objections.

Here is a series of ideas you can use to help you anticipate what your customer's objections will be:

1. Get vour customer's viewpoint. Selling is based on presenting what you are selling from your customer's viewpoint. You visualize what your customer will gain as you make your sale. You paint vivid pictures of the benefits your customer will gain when he buys what you are selling.

When you anticipate your customer's objections, you use this same selling technique. You visualize the things your customer wants to know. You take into consideration your customer's desires, beliefs, prejudices and knowledge.

2. List the most common objections. If you were to sit down right now with a pencil and paper, you could probably make a list of ten or twenty objections your customers raise. This list, even though not in the order of importance, will give you some of your hot spots in selling—areas where you are having trouble in answering customer objections.

After you have made your list of twenty common objections, go over them and see if there are any duplications. You may find, for example, that four or five of your common customer objections all boil down to one thing –competition.

Your analysis of your list of customer objections will give you a good clue to where you need to put more emphasis in your selling. And, it will give you a key to the specific things you will need to develop so you can overcome your customer's objections.

3. Formulate your best answers. Selling is oral—not written. Regardless of how well you can write out your answers to customer objections, you will not be able to present these answers from notes. Nor can you hand your customer a card with the answers to his objections on it. You must give your answers to your customer objections verbally.

Writing out your best answers will, however, give you time to give each answer your concentrated thought. As you work to write out an answer, you will have a good idea of how to give a verbal answer to your customer's objections.

Then, too, writing out your answers gives you another advantage. It helps you fix the answer in your mind. It makes it easier to remember the way you thought of answering this customer objection.

4. Organize your sales talk. You have collected a list of the common objections and worked out an answer for each of these stumbling blocks. Next, you want to use this material in your sales talk. You want to anticipate the objection and to cover the answer before your customer has an opportunity to voice the thought.

One way you can do this is to write the objections on 3 x 5 cards. On the same cards write out your best answers to the objection. This will give you a compact set of questions and answers to work with.

Next, arrange these cards in logical order—the order in which your customers bring up these thoughts in the sale. Then, as you go through your planned sales demonstration, you can follow the common objections and bring up your answer before your customer mentions it.

Thus, though anticipating what your customer is thinking, you avoid the danger of losing control of the sale.

5. Keep adding new objections to your list. Selling is a dynamic profession. Times change. Your customer's viewpoint will change. Current happenings will bring up new objections. Answers that worked like a charm last month may not ring the bell now. Keep adding to your list of common objections to be ready to anticipate everything.

How do you handle closing?

Properly speaking, there is no closing. The closing process should be an integral part of the entire demonstration and sales talk—from the time the prospect walks into the store.

General Motors used to furnish all of its GMC retail salesmen with little pocket pieces resembling gold nuggets, which they called the "closing tone." All salesmen had to keep this stone in their pocket so that during the course of the presentation when the salesman had occasion to put his hand in his pocket, he would be reminded to 'close' and ask the customer for an order.

You have heard talks where a lecturer says "Watch for the psychological moment or ideal time" to aks the prospect.

Instead of waiting until a prospect is exhausted with facts, statistics and figures before asking for the order, successful salesmen make every attempt to close before the demo, during the demo, after the demo, before answering objections, while answering objections, after answering objection. Closing is coincidental with selling. It is a natural sequel to a sales point well presented.

These are several methods that can be used to try to secure a favorable buying decision:

- 1. Try-out close—The prospect is asked for a decision on a minor point. For example, you ask. "Which wood would you prefer in the cabinet, walnut or teak?"
- 2. Committing questions—By getting an affirmative reaction on each point made during the presentation, the salesman actually leads the buyer step by step towards the order. On

-Continued on page 53

SONY



SUPERSCOPE

The Tapeway to Steree

Sound News and Views

Vol. VI — No. 1 Sun Valley, California

January, 1966



ENTERTAINMENT A LA CARTE

by Joseph S. Tushinsky

What happened in the field of home entertainment during the last year proved us optimists right — but not right enough. We had said the home entertainment industry was in for a good year. We just didn't know it was going to be so good a one.

Take color TV as an index. After years of lagging along; suddenly the breakthrough came. Of the 10,500,000 sets sold, almost 3 million were color. Along with that, 23½ million radios and 5½ million record players were sold.

'65, too, was the year that home video tape recorders made their first appearance, with Sony the star of the entrants. At \$1,000 and up, VTR is still far from every home. Yet, the day will come when the video instrument will be commonplace.

As for our own particular sector, over 1,600,000 audio tape recorders were sold. Extrapolating from the strength of this trend, we now predict that 5 years from now, home audio tape recorders will be selling at a rate of about 4,000,000 units annually. We shall probably be right again — but not right enough.

In the interests of good business, we now ponder two questions:

1. Why is the home entertainment market soaring the way it is?

2. How can tape recorders capture even a bigger share of the market?

First: although this is the era of the population-explosion, it is, at least in this country, also the era of the individual. And the indivi-

S/S Dealers Join USO in "Operation Voice-Letter"

A tired and lonely GI walks into the USO center in Saigon. The place he wants to be is 8,000 miles away. Out of his pocket, he takes a small reel of tape that came in yesterday's mail call and puts it on a recorder. Then he sits down and listens.

"Hi, Jim, this is Martha . . ." she didn't have to tell him. He'd know her voice even if he hadn't heard it for longer than 8 months. "I want to tell you the crazy thing little Jim did today . . ." the voice laughs, that hearty but so feminine laugh that makes him laugh just listening to it. "Let me tell him myself," a boy's voice cuts in. "Hey, pop, you know that kid George . . ."

The GI is back home . . . for an hour. He hears that nutty oaf of a dog with its high pitched bark. He hears the surf pounding against the shore on the beach he used to swim at. He hears his mom and his dad and even his uncle Willie who was always giving him those tips on the stock market along with advice on how to make the most out of life.

Then he takes a fresh reel of tape and puts it on the recorder. He picks up the microphone. "Martha... and mom and pop and little Jim and Willie... let me tell you about what I did today..."

This year, "Operation Voice-Letter" is bringing at least the beloved voices and noises and songs to those who must be away. And Superscope dealers can be proud that they are a part of it.

The idea of taping messages to servicemen overseas is not new. In 1964, taped messages transferred to discs were sent to 21 foreign countries by the Red Cross "Voice From Home" program, and army officials felt the program was important in maintaining morale. But "Voice From Home" limited its messages to $2\frac{1}{2}$ minutes and it offered its domestic-side services only in the East. This year the busy USO, in setting up a "Hello, Mom!" pro-

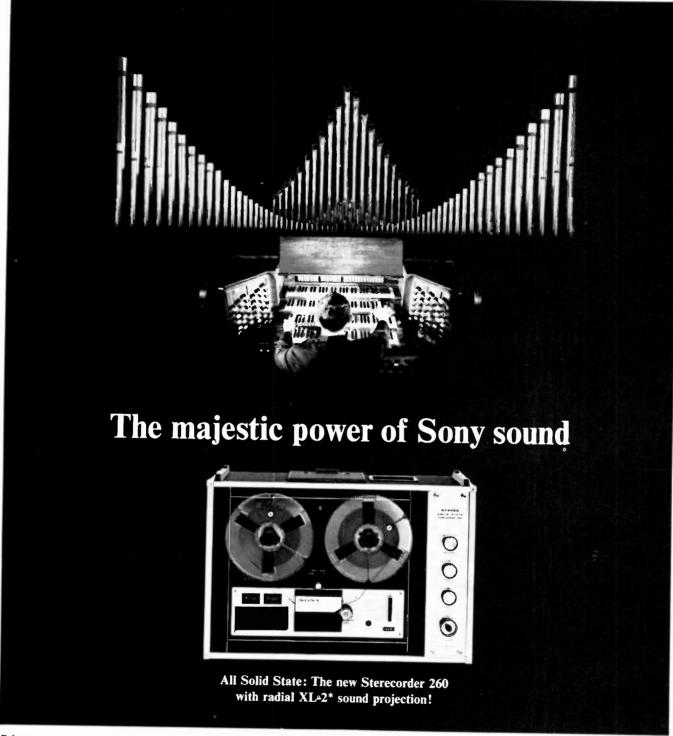
gram to enable servicemen in Vietnam to talk via telephone to their families during the holidays, came up with an accompanying program, utilizing tape recorders.

"Operation Voice-Letter" originated in time for Christmas in the USO headquarters in Los Angeles. "Why not put at least one tape recorder in every branch of the USO here in continental United States and overseas?" was the question asked. Sony/Superscope and its dealers offered full cooperation in the program.

Many families have their own tape recorders and so have some servicemen. For them, voice correspondence is a familiar routine. But many, many more do not own recorders nor are acquainted with their functioning. "Operation Voice-Letter" is a program to close the long miles. "Nothing says you like your voice," says the phone company, and the other sounds of the things one loves have equal impact.

"Operation Voice-Letter" has placed recorders and a supply of tape and tape mailers in every USO Club, besides opening the dealers' stores for the program. Families have visited and will be visiting the clubs and the stores to record 5 minutes worth of nostalgia. They brought and will bring sound "props", including Herbert's saxophone, along. The 3 inch reels of tape, placed in mailers were and will be immediately on their way to an APO. The servicemen were playing the first tapes and air-mailing their answers before the holiday season was over. Dealers all over the country report a gratifying response to this program.

Although it started as a Christmas program, its need proved to be more than just seasonal and "Operation Voice-Letter" shall continue as long as there are GIs overseas and they want to hear the voices that have personal meaning for them, and as long as they want, in turn, to be heard.



Listen to the soaring splendor of a Cathedral organ sounding Handel's magnificent Hallelujah through the sensational new Sony radial XL-2 sound projection speaker systems. From the highest treble piping to the volcanic power of the bass, you hear every breathtaking sound. Look — at the precise functional design of the facia panel, with finger-tip controls for maximum ease and efficiency. Touch — the concentric, computer-type knobs, responsive to the most sensitive adjustment. Know—that this superb instrument is from world-famous Sony, perfect for any recording or playback situation. A complete-in-one portable and home four track solid state stereo tape system, with microphones and Sony radial XL-2 stereo sound projection speakers: All the best from Sony for less than \$249.50! Other outstanding features of the Sony Sterecorder 260 include: two professional V.U. meters, automatic shut-off sentinel switch, automatic tape lifters, bass and treble tone controls, vertical and horizontal operation, FM stereo recording inputs, two tape speeds, 20 watts of music power. An exciting new concept in stereo separation! For nearest dealer write Superscope Inc., Dept. , Sun Valley, California.



Our monthly visit with

Charlie

THE CREATIVE DEALER



"Have you ever thought about where the trend can lead?" asked Charlie as we came in this month.

"What trend, Charlie?"

"The slowness trend."

"How's that?"

"Well, at one time you couldn't get any music fidelity that was fidelity at less than 15 ips."

"That must have been about 15 years ago, Charlie."

"Right! And then for a while it was $7\frac{1}{2}$. Speech, $3\frac{3}{4}$, but music had to be $7\frac{1}{2}$."

"Until just this year."

"Right! Now, what with the improvements in recorders, a lot of music is being taped at 334, and it's good. But we're not going to stop there."

"What do you anticipate, Charlie?"

"Come here, buddy." Charlie led us back to a table on which stood a home-made-looking recorder such as a genius like Charlie might put together. He threaded a reel of tape and turned the machine on, but, although we waited and waited, the reel didn't seem to be moving at all."

"It's standing still, Charlie." Charlie shook his head. "Not quite. It's the ultimate in slowness. 1/1,000 ips! Think of the saving in wear. Why, everything will last forever! And just consider how much recording time you'll get to a ree!!"

"Let's figure it, Charlie. An 1800 foot reel, moving at 1/1,000 ips...let's see...1,000 seconds per inch..." We did some rapid calculation. "Charlie, that reel would play for almost 9 months straight. What would you record on it?"

"Well, to begin with . . . the Bible, both testaments, the Encyclopedia Brittanica, all Beethoven's 9 symphonies, the complete adventures of James Bond, Verdi's Operas . . . "

"But, Charlie, maybe it's our ears, but we can't hear a thing."

"You can't yet. That's the one detail I haven't worked out yet, but

It was at that point that we tiptoed out.

TAPE RECORDERS



in the Noma

HOW TO PUT TOGETHER A HIT

Merely by snipping actual magnetic tapes of prominent politicos, recording new questions, and splicing the first to the second, Earle Doud, a gag writer, has compiled the hit record titled "Welcome to the L.B.J. Ranch." To do this, Doud and his co-producer, Alen Robin audited 36 miles of taped interviews. So far, the record has sold over 1,000,000 copies. Here are some excerpts:

Q. "Would you say that Hubert Humphrey has been a good vice president?" Lyndon Johnson: "Yesterday was quite encouraging."

Q. "Is this the bedroom where you and the president sleep?"

Lady Bird Johnson: "Yes, war was declared twice in this room."

Q. "Where do you think the republican candidate will come from in 1968?" Senator Everett Dirksen: "Out of the woodwork."

Reminds us of the old joke: Go ahead and ask me a question. Have I got an answer!

HIGH LIFE AT THE HAREM

Adventurous and pretty girl reporters Mary Goodfellow and Tonie Howard recently spent a night in a Cameroon Sultan's harem. It was just to do a story for The Detroit Free Press. And the highlight of the story — for us, anyway — was that the Sultan's favorite, Queen Njoya, entertains herself doing a wild twist-like popular dance called the High Life to the tune of a tape recorder.

ARE YOU ARE?

A math teacher named James Voltz has found a way of coping with the servant problem. Ring Voltz's doorbell and a 6'6'' robot with antenna, lightbulb eyes and motorized feet answers. His aluminum jaws open and close and the tape recorder in his head speaks: "My . . . name . . . is . . . Clarence . . . when . . . the . . . red . . . light . . . on . . . my . . . chest . . . goes . . . on I . . . start . . . recording . . . your . . . message . . . "

After you've spoken your piece, Clarence shuts the door and turns himself off.

BRING JUSTICE TO THE MOUR-ONER, VOTE FOR ME FOR CORONER

Walter E. Boright, Jr. has been campaigning for the office of public coroner of Kenilworth, New Jersey by singing his platform to the musical accompaniment provided by a tape recorder.

Why not? California sent a song-&-dance man to the Senate.

THE BETTER HALF By Bob Barnes



"I've finally found a way to wake you up! . . . I taped your snoring and turned up the volume!"



STOCK TAKING

by Irving Tushinsky

Welcome '66. A new year is traditionally the time for looking ahead. What does the future hold, we wonder — for our dealers, for the industry, for Superscope. It is customary to hope to do better. And, there, we have a tough nut to cope with, when you consider that the past has brought such Sony tape recording achievements as:

SONY HEADS. Made of the industry's hardest head-core material. With a deep gap of only 21/2 microns in width.

IDLER WHEELS USING SONY RUBBER. Sony's own uniform-consistency formula rubber that can be machined to precision tolerances and withstand the elements.

SONY'S INDUCTION MO-TOR. Iron-heavy induction motor with larger rotor, doubled insulation, forced air circulation, voltage step-up.

SONY CAPACITORS AND RESISTORS. Sony circuitry using more capacitors and resistors . . . premium quality oil and mylar capacitors . . . best wire-wound and finest quality deposited-carbon resistors.

SONY UL APPROVAL. Sony recorders wear the Underwriter's Laboratories badge of approval since Sony's own standards demand the finest and safest components.

SONY DYNAMIC MICRO-PHONES. Diaphragms of special Sony formula moulded and honed polyester. New concept magnetstructures. Award-winning styling.

SONY Q.C. Quality control that is doubly demanding since every Sony recorder - from the lowest to the highest priced - must undergo a thorough, rigorous inspection and testing - not only once, but twice; at the factory in Tokyo, then at Superscope, in Sun Valley, California.

SONY STYLING. Sony's award-winning styling of its 12corders, achieves a distinctive look because Sony designers are also functional engineers working in the Japanese tradition of an art noted for its delicate simplicity.

Considering these achievements, the challenge is exhilerating.

102 123 211-TS 250A 260

Entertainment

Continued from SN & V - 1

term sums it up.

choices at home.

dual wants to enjoy a good part of his leisure in his own way

and sports events with increased frequency. But, along with this

blue-plate night-on-the-town diet,

they'll consume an even greater

amount of their own favorite

capture their proper share of the market? Don't overlook the fact

that in '65, there were still about

316 times as many record players

sold. Eventually, the tape recorder

will overtake the record player. How shall we bring this about?

player in accord with the a la carte

trend. Tape has a flexibility that disc lacks. Tape reproduces with

greater fidelity. Tape has a longer

life. (There are 20 year old tapes

that are still excellent.) With tape.

the music lover can collect his own

recorded library from many sources.

Tape is more easily stored, with no

danger of deterioration. And a tape recorder can be used for a dozen

many people mistakenly still think

that the tape recorder is a complex

instrument requiring technical

know-how to operate. It is up to the dealers to preach the gospel of

ease of operation, and the best way

to do this is simply by demonstra-

tion. More recorders are sold by

demonstration than by any other

system and neglects to include a

tape deck in it is not only hurting

his business but limiting the a la

carte enjoyment of his customer as

tape decks now being sold, people

are becoming less wary of the com-

plexities of tape. At one time, one

deck was sold to every 200 complete

tape recorders. Today, thanks to

such units as the Sonv 250-A and

the Sony 350, the ratio has been

narrowed to more like 1 out of 30.

ment a la carte, he must make more

of his prospects aware of both the

superiority and the simplicity of

a la carte era, it is the tape recorder.

operation of the tape recorder.

But, if the dealer is to keep in step with the march of entertain-

If one machine is ideal for the

The dealer who sells a hi fi

Actually, from the number of

Studies lead us to believe that

other functions.

method.

Now, consider the advantages of the tape recorder over the record

Which leads us to the second question. How can tape recorders

Entertainment a la carte. That

People will go to concerts and operas and dance recitals and shows

8150 VINELAND AVENUE

World Radio History

SUN VALLEY, CALIFORNIA

SUPERSCOPE, INC.

SN & V - 4

900 905

every point made you ask the prospect to commit himself favorably.

- 3. Implying ownership-The salesman creates in the buver's mind a feeling of possession which actually stimulates a buving mood,
- 4. Getting basic decisions-Close sales by persuading the prospect to make secondary buying decisions on the need, brand, source of supply, price, proper time or delivery.
- 5. Emphasizing a single feature-Every product has one or more distinctive features which truly excel. By focusing the prospect's attention on this feature and emphasizing that it alone justifies the purchase price, a salesman may secure his favorable
- 6. Summarizing principal advantages-By making a summary of the major advantages, the salesman can offer enough reasons to sway favorable action.
- 7. Offering a special inducement-Get action by making a special deal if he acts at once. For example,

longer terms, extra trade-in allowance,

- 8. Implying Consent In selling luxuries, a salesman may assume that a prospect is ready to buy without securing his express consent. Introduce the order book early in the interview, so the prospect becomes accustomed to it when it's time to get him to sign on the dotted line.
- 9. Executing an order-Don't overlook the importance of accuracy in completing the details of the deal. You'll end up with the customer seeking an adjustment.
- 10. Getting the buyer's signature-Few buvers voluntarily sign an order; they must be asked. However, this can be done subtly.

After you get the order, never forget a customer and never let a customer forget von. Remember, maintaining contact with old customers makes for many leads and repeat sales. Once you have got him into the bab't of buying, why give up a good

TECHNIQUES FOR TAPE:

Key recorder sales to mikes

When you have before you a potential customer that wants and needs a really good professional quality tape recorder but doesn't have enough money to buy one, here is one way to get a satisfied, technically impressed customer, one who has an incentive to return to buy a professional quality tape recorder at a later date.

The first part of the sell-up is to sell the customer a better microphone for his low priced tape recorder. The search is then on to determine the kind of uses the customer wants to put the tape recorder to; thus, the selection of the microphone type (generally in the \$50 bracket, sometimes going as high as \$100 and \$150). This usually involves the necessity of also selling the customer a low impedance transformer and a plug to match the tape recorder.

Generally the more expensive a microphone the better the dynamic range capabilities. Usually the average tape recorder has the ability to accept whatever frequency range and dynamic range the microphone can deliver to it in the recording process."

The way to tie down the sale of the better microphone and the future sale of a better quality tape recorder, is to always have ready a good microphone (but not too high priced-in the \$50 range) so that a demonstration can be accomplished. This is done by recording in sequence on the tape recorder with the microphone that comes with the tape recorder, then with the better more expensive microphone. By playing the tape back both on the tape recorder the customer is buying and on a professional quality tape recorder, the customer just can't help but hear the difference the better microphone makes.

Of course, the recording should be done with carefully selected musical source matrial (tapes) fed to the open microphones through a good high quality high fidelity speaker systemwith the microphones placed in the best position for pick-up. A little experimentation will determine the best microphone placement in the room von are demonstrating in.

Help Tapers to answers

Magnetic sound recording tapealthough it has helped revolutionize the audio field since it was introduced 20 years ago-is still a miracle to most people. They may know little, if anything, about monaural and stereo recording. They may wonder what you're talking about when you say "two-track" or "four-track." Acetate and polyester are just two more plastics to them. Why all the speeds? What does "ips" stand for? Do they know why music should be taped at a faster speed? What's the difference between economy and quality tapes? Can you tell them how to record a phonograph record? Do they know how to erase a tape? Can you tell them how to splice tapes?

Tapes and the tape recorder are versatile. To sell them, you should be able to instruct the prospect as to how he can get the most out of them. The more use he gets out of a recorder, the less likely it will gather dust on a closet shelf.

This is all elementary. But without such knowledge vou can't convert a prospect into a customer; nor can you keep the novice who aspires to produce better and better sound.

Only informed explanations and demonstrations will serve to sell the prospect. If salesmen know the product, they will sell not only tape, but tape accessories, and hi fi equipment. The road from a portable to stereo can only be paved by knowledge and an enthusiasm for tape as a recording

Keep manufacturers' literature on hand. See that the prospect leaves the store with a copy of each piece of literature. The more informed the prospect, the more likely he will become a steady customer.

And tell your customer that the sound to be reproduced is only as good as the tape. Sell quality, not

People who buy economy tapes never know what they are getting. They can't see the imperfections, but someday they'll hear them. The reproduced sound will be only as good as the tape. The oxide may not be uniform; it may wear off quickly. The ribbon may not have been precisely slit, and the tape will not travel evenly over the recorder head. There may be other imperfections, all of which will affect the sound.

-Continued on page 59

This is how Dealers are advertising Hi-Fi

Eber Electronic Supply, Inc. San Francisco, Calif. 550-line ad run on a Sunday



Radio Shack Santa Ana, Calif. 1000-line ad run on a Thursday

Pacific Electronics San Francisco (Berkeley), Calif. 900-line ad run on a Sunday



COMPLETE STEREO SYSTEM

for just 45c more than the Fisher 400 alone





Wolk's Pittsburgh, Pa. 100-line ad run on a Sunday



McGuire's Audio Shop Washington, D.C. (Bethesda) 600-line ad run on Saturday





FISHER 50-WATT STEREO AMPLIFIER

Epiber modul 3 100 8 Max even-thing you cold district an empform follows access men invention of a service or before type fig.4m mine of district and to district an object spep fig.4m mine of district and District

S99



Allied Radio Corp. Chicago, III. 2500-line ad run on a Wednesday



Audio Fidelity Corp. Richmond, Va. 110-line ad run or a Sunday

...AND MORE—

DEALER ADS-

Howard Sound Denver, Colorado 120-line ad run on a Sunday



Pacific Music Center Honolulu, Hawaii 2500-line ad run on Thursday





Vickers Electronics Durham, N. C. 210-line ad run on a Tuesday

Kaufmanns (dept. store) Pittsburgh, Pa. 600-line ad run on a Wednesday



White Front San Jose, Calif. 2500-line ad run on a Sunday

Soundco Electronic Supply Co. Springfield, Mass. 325-line ad run on a Sunday







General Electronics Ventura, Calif. 250-line ad run on a Tuesday



Graham Electronics Supply Co. Indianapolis, Ind. 150-line ad



SCOTT IS AWARDED a placque containing the 15 millionth output transistor made by Bendix. Hermon Scott accepts from James Harrison. Other recent awards include two Merit Awards for product styling from the Associaetd Industries of Massachusetts.



THE MOUNTAIN of Sony recorders represents the initial order for the new Audiofile shop in Boulder, Colorado: Manager Tito Roberts takes personal delivery from Sony/Superscope's Bill Pugliese, who called it the largest shipment they have ever made to the city.

camera eye



HARVEY'S new store in Woodbury, Long Island carries a prominent display of consoles, among other things. Recorders are visible to the right, flanked by two listening rooms, graded by price category.



"THAT'S LOYALTY, man!" was the caption Ampex sent us with this shot of their southern regional manager for consumer products, Bill Johnson. Texas allows special plates with up to six characters at a \$10 fee.

"Components easy to sell"

Don't overlook PR possibilities

A well-molded public relations program is an asset to the audio dealer. Lack of one can place the same dealer squarely behind the proverbial eight ball! Here are some of the facets of such a planned public relations policy.

Newspapers, urban and suburban, are legitimate targets for your public relations efforts! They welcome the news, personality or human interest story providing (a) it has news value, and (b) there is a minimum of work on their part getting the story.

For example, if the local schools use stereo in their work with handicapped children, that, for most newspapers, constitutes a highly worthwhile story. If City Hall is equipped with a stereo system—in its employee cafeteria and its outer reception halls—that is equally newsworthy.

It's just as newsworthy if a local physician happens to use stereo in his every day work to relax his patients and mitigate their nervousness. Or if the postman happens to be a guitarist and has a specially designed electronic amplifier to use with his instrument.

There is the strictly technical short item, with a picture or two, of a pocket tape recorder being used by a local businessman, or an explanation of what multiplexing may mean to the local radio station. Many newspapers even welcome a short article on what stereo is and does.

Newspapers, particularly the suburban weeklies, thrive on stories which tie in a local personality, business concern or industrial plant with their use of stereo or hi-fi. Keep them short, and if at all possible write them yourself or turn the chore over to a free lance writer or one of your employees with a gift for putting words together.

Your customers like to see their names, their pictures, their hi-fi installation, their home, and their children in the newspapers. They'll co-operate in providing you with the basic ingredients and help with the securing of a photographic background.

And, of course, don't overlook possibilities for tying in with activities of community agencies like Rotary, Jay-Cees or Red Cross.

Public relations for the audio dealer means keeping his name perpetually before the public as a source for quality audio equipment and service. In West Covina, as on Cortlandt Street, the parts store format has drawing power for audio customers, even if they may be in the minority.

"We'd hate to depend on our radio components for all our profits."

That's not as treasonable a statement as it might sound when it comes from Mike Wright, young manager at West Covina Electronic, from the city of the same name.

A brisk walk-in trade, especially on parts and two-way radio gear, keeps busy a three-man staff, plus a technician and one "part timer." Owner Barney Goldman comes out of the office and helps with customers on weekends and at rush periods.

"We have components mostly because customers expect it," Wright explained. "Actually, we find them very easy to sell. But as we're set up, as I said, I'd hate to depend on them for our whole business."

To answer our question, he estimated perhaps 8% of the store's business is in discernable component units. (No telling what use is intended for scads of the parts which knowing clientele pick up, of course.)

The store is situated in one of the huge shopping centers of West Covina. Two or three miles across town are Wallichs Music City and Acorn-Arrow, with White Front and Hi-Fi Covina in adjacent Covina. Acorn-Arrow, part of a chain recently taken over by the East's well known Gem operation, offers a large parts and radio department, too. Wright said he couldn't estimate the impact of Acorn-Arrow since, as he recalls, both stores opened about the same time some three years ago.

"Certainly we're friendly," he said. "If we don't have a part and think

they may have it, we suggest them to the customer."

In casual conversation we got the impression he thinks his store can better serve and gauge the local needs because it is *not* part of a chain. Display ads in the San Gabriel Valley Daily Tribune, for instance, always include the announcement: Radio and TV Tubes Always ½ Price.

"That goes for all receiver tubes and it brings people into the store because they know it's a standing offer," Wright said.

The store is clean albeit cluttered in parts-store tradition. Its front stretches some 120 ft. Overhead signs inside offer Headphones . . . Speaker Enclosures . . . Speakers . . . Auto Radios . . . Microphones . . . Magnetic Tape . . . Reverb' Units . . . Antennas . . . Grille Cloth.

The western wall is devoted to components, although accessories are scattered all through the store as well. Despite Mike's low percentage figure on component volume, we noted many familiar names.

"We go out if someone insists we are the ones who can best install their gear," Wright said. "Sometimes we do bid on a job, if that's required in connection with a project. But parts are our bread and butter. We serve local dealers lots of times, as well as local technicians in radio and TV. Our two-way radios bring customers as far away as San Bernardino, almost 50 miles away."

Mike Wright, who got into electronics as a ham operator and studied the subject at nearby Mt. San Antonio College, is well known to his customers. While we were there a whole stream of people came in calling "Mike!" There was something about installation of a car radio in an auto parked in front. There was a trouble-shooting session with the new owner of a Citizens Band system in his car. Another man purchased an intercompair to ship as a gift.

Audio components? Yep.

After listening via headphones all alone in a corner, a customer did make a small-item purchase. Not a \$2000 home music system—but enough to verify Mike's 8% estimate.

Mike Wright is mgr. of West Covian Electronics.



JANUARY, 1966

HIGH FIDELITY TRADE NEWS 59

Don't pass up sales of industrial products

A logical area of expanded sales for many dealers. CCTV, intercom, and many related products can be moved with a little imagination, says Pacconi.

CONCORD'S PACCONI must be doing something right.

When John Pacconi invites you to sit in on an all-day sales meeting with his reps and regional management, for Concord's lesser known (at present) Industrial Product Division, it's impossible to say no.

Concord, whose reputation is well established, as to volume, in the broad-based tape recorder line, also operates an Office Dictation Machine Division in addition to the Industrial Products Division. But what interested this writer was the extent and depth of products and marketing opportunity for our dealer readers with these industrial products.

"One of the prime opportunities for High Fidelity TRADE NEWS readers," says John Pacconi, "is the growing use of home closed-circuit TV. Just like you sell a hi-fi system, why not tack on a CCTV camera for the front and back entrances to the house, or for the nursery.

"If you will picture a dealer twidling his thumbs, waiting for someone to walk into his store, I'll show you a guy that's got real problems. What's wrong with his calling up every system installation he's done in the past

four years, and talking about updating the system or adding a TV security system, or a wireless intercom system? If not in his home, how about his business? If the trade is disinterested in developing commercial sound business by going after it, how about using closed-circuit TV as a store security system, or maybe just to enhance home entertainment equipment.

"Look. Let's say you take that voice activated Concord recorder and you put it in your window near a TV, or any other sound source, train a camera on it, put a sign over the recorder line that goes something like this: 'When the sound goes on this recorder starts. No sound it stops. Come in for a demonstration and we'll answer your questions.' Then you put a TV receiver in the window and watch the traffic stop.

"The opportunities for exploiting the CCTV market are untouched and they are limited only by the real merchant's imagination. What's wrong with a big appliance store, having installed this system, putting up a sign inviting the public to make inquiries on this CCTV, for use in their own

"But I could go on for two or three

days giving out with merchandising opportunities with close circuit-TV. We've got other items to sell as well."

This is basically what John Pacconi spent the day talking about, the merchandising opportunities for his full industrial line. In effect developing a theme that made sense to his reps. that this was not just an industrial line, but four separate lines. His merchandising presentation to the reps, went as follows:

1. You've got a hot closed-circuit TV line, with all that goes with it.

2. Then you've got what Concord calls the inter-writer, which takes writing on paper, transmits it electronically to a receiving unit, and reproduces it as it was written.

3. Then he has a cordless public address system, and a line of wireless solid state intercom models and wireless mikes.

4. Plus a line of hobby and commercial transeivers.

Pacconi's pitch was simple. It's under one roof but you have actually five separate and distinct lines, and that's the way to sell it. Marketing opportunities are all over the place for the retailer and of course for the reps that he was pitching.



IN THE AUDIENCE for this sales meeting are Bill Miltonberg of RCA, Art Gaines, Martin Alshulter, Vince Formicola and Ken Nelson, High Fidelity TRADE NEWS v.p. In the center, John Pacconi talks to the group and demonstrates the inter-writer for Wheaton (Md.) rep. Art Gaines. Martin Alshulter examines the CCTV camera.





JANUARY, 1966

Colorsound changes hands

No plans to continue production of present units, says new management; but don't give up on the idea of a "visual translator"—perhaps at lower prices.

Assets and inventory of Colorsound, Inc.-the "see what you hear" hi-fi adjunct-were acquired by Progressive Enterprises, Inc. in November.

Progressive's president, Ernest R. Collins, says that his company, at 1027 N. La Brea Ave., Los Angeles, will continue to handle and service the product, probably under another name, possibly as Colorsound again at a later date.

He characterized Progressive as mostly in export and import of electronic products and mentioned a factory in Paris. He characterized Colorsound as "a dormant corporation" currently and said several new trademark names are in the mill. But, he said, if Colorsound officers and stockholders straighten out various financial problems, the original name conceivably may be continued.

Progressive meanwhile is warranting merchandise that is out.

In handling and manufacturing the product, he also mentioned calling in various units and/or parts, apparently to combine with parts and techniques Progressive already has to produce similar translation of sound into color, but doing it somewhat differently from Colorsound.

Collins and various dealers handling Colorsound were hesitant about second-guessing the original setup.

Most comment indicated financial and business strategy errors as the probable villain-as against Colorsound's success or lack of success in the rather rarified fringe of the hi-fi market it apparently sought.

Jack Turley of Rancho Hi-Fi in Azusa, Calif., a dealer who still sells Colorsound and services it, characterized it as having a place in the business "For the Man Who Has Everything." That's exactly what a company spokesman called it when it stole the show-in curiosity value, at least-at the Los Angeles Hi-Fi Show a couple

Collins, who did not divulge what was paid for Colorsound's assets, indicated he had heard rumors of stockholders failing to come up with expected stock to help offset one loan approaching the \$100,000 mark. In answer to questions, he also said he had heard of engineering projects being scrapped after going foreward to the tune of as much as \$20,000, with a tendency to move ahead without first creating a market.

Bud Kelly of Dow Radio had some interesting comments on Colorsound (which he admits he considers a gimmick, "but a high-potential one"):

"There's definitely a market, but the price has been about double what it should be to move properly. A reasonable price would be \$100 (or \$99.50)." This presumably referred to the Model 201 solid state color translator advertised in 1965 at twice that-\$199.50.

Kelly also came up with a problem he was unable to solve:

"Unless you can demonstrate Colorsound under ideal, darkened or softlylit room conditions, it's just so much nothing. I've never been able to simulate home conditions in a normally lighted sales area.

"After all, you can't turn off the lights and stop all your other selling.'

The moderns

FRIEND OF OURS happened to have a tape recorder handy on his daughter's 11th birthday.

Our friend and his little girl did some lively repartee on tape to entertain the eight gals who showed up for the birthday party. The girls got a kick out of this, but Mr. Friend noticed apparent boredom with his subsequent on-spot recording of the party table-talk. By keeping his ears open, he learned the reason. Chitchat disclosed that three of the eight 9 to 11-year-olds had their own recorders at home, and only one was acquired as recently as Christmas! And apparently most of the rest of the girls were accustomed to having their folks' tape recorder around the

Remember when girls played with

50 IDEAS

- fifty top-notch sales producers, all with abilities proven in the high fidelity markplace.

- Keep your demo set-up neat, with no dangling wires; post pictures of attractive installations, publicize the cabinets you sell; in other words, don't scare the wives away, but make them feel at home.
 - Make sure your demonstration equipment works —check it each day before you open.
- Shoot color photos of your custom installations. Keep one copy of each in a display album to show prospects, give the other to the customer to build good will.
 - Try a dealer newsletter, to tell your customers what's new in audio, explain terms and concepts, introduce your sales staff, point out new uses for tape and audio components.
- Sell gift certificates; it ensures the recipient's getting what he wants and brings him into your store to make his selection.
- Label every component that you sell or service with your store's name, address and phone number.
- Always demonstrate from the top end down.

 But don't work down to the customer's price range so fast that the drop in quality will be too noticeable, or you'll give the impression that you're trying to unload junk on him.
- Short of help during a rush season? Hire untrained help to handle routine matters after the sale is closed—wrapping, ringing up, cleaning up.
- Keep your service department neat, to build your customers' confidence and your service staff's efficiency.
- Contact your local newspaper's ad manager and arrange to spend an hour getting professional advice on planning your ad campaigns. But go prepared, knowing which prospects you want to reach, and what message you want to deliver.

- Have a liberal return policy—and let your customers know about it. Let gift-buyers know you'll correct any mistakes they make in judging what the recipient needs or wants.
- Very old phonographs are a quaint display item. If playable, so much the better.
- Set up a home video tape recorder and a camera. The novelty builds traffic—and sells home VTR's.
- Demonstrate the difference between mono and stereo with a headset and a stereo mono switch. Start with a stereo program played monophonically, then open it up into stereo.
- Set up a "headphone tree," a post from whose branches dangle headphones (all connected) for easy browsing and impulse sales.
- Hold a clinic. Several manufacturers, including Tandberg, Empire, Martel, McIntosh and others will send technicians and instruments to their dealers to check the equipment customers bring in
- Promote kit-building as a relaxing occupation.
- Ask your customer what type of program material he wants to hear—those super-duper demo records just confuse the customer who's used to listening to something else.
- Set up a timetable for displays, and change them regularly. Don't wait for the movement of merchandise to make your mind up for you.
- Take stock of your sales methods; hold a daily critique with yourself to see how effective a salesman you are, and how you can improve yourself.

- Let your tape recorderscsell themselves with a pre-recorded pitch on the uses and advantages of tape, perhaps you can program each model to extol its own virtues.

 Use eye-catching, offbeat windows. One dealer put a small sports car in his window, tilted towards the street to show a recorder working from a cigarette-lighter inverter.

 Whatever your posted business hours, stick to them. Nothing annoys a customer more than making a special trip to a store that's scheduled to be open but is actually closed.
- Promote the peripheral uses of tape and recorders: electronic bulletin boards, tapespondence, class and lecture notes, etc.
- 25 Kits are fun for youngsters; promote them to youth groups, as graduation presents, etc.
- Don't use your customer's voice to demonstrate how well a tape machine records—no matter how faithfully recorded, it will always sound strange to him. This goes triple for women.
- Don't overlook possibilities for financed selling; give prices in terms of down payment. Then you can upgrade the sale with only a small rise in the customer's payments.
- Don't ignore the broadcast market: radio and TV stations spend thousands yearly on recorders, cartridges, turntables, tone-arms and the like—and all top-quality.
- Explain audio technicalities and new developments in an open lecture, using projected illustrations and live demonstrations wherever possible, to pep up the proceedings.
- Keep your demo records clean and well-cared for, and discard them when they're worn or scratched.
- Sell gift subscriptions to an "Audio Gift of the Month Club." If the recipient must come in periodically for his gift, the Club will prove a traffic-building gift that keeps on selling for you.
- Know all the virtues of your stock—the customer who knows its features better than you do soon begins to doubt your competence.
- Music instructors and musicians are a prime tape market. Seek them out.
- Put movement into your windows, with automatic-reversing tape recorders (use a very short reel of tape), tilted automatic turntables recycling frequently with a 7" disk (it happens faster at 78 rpm), video-tape recorders.
- Tape your recorder sales pitch as you make it.
 The playback lets you hear how well you're doing, while the customer hears it again.

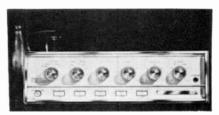
- Need a part-time salesman? Try your more knowledgeable customers. They need less training, and they will be earning extra money while surrounded by temptations to give it all right back to you. (Employee discounts help, too.)
- Start a hi-fi club after hours. Suggested activities: taping sessions, demos or comparisons of interesting new equipment, tours of nearby audio plants, FM stations.
- Ask your custom installation customers if you can show their setup to new prospects (by appointment, of course); even if they say no, it shows your pride in the job you've done for them, and helps build theirs.
- Invest in your image: hire an artist to produce a distinctive trademark, then plug it consistently: in your advertising, your letterhead, your cards, your store decor, etc.
- Always let the customer participate in the demonstration. Ask him to use the dials to get the feel of the system, press the reject button on the automatic turntable, thread a reel of tape onto the deck.
- Phone your regular customers when a new and interesting item comes in. You can squeeze in the time during slow periods or coffee breaks.
- Marking down the slow-movers? Use a mass display, prominently placed, to call customer attention to the sale.
- Are your manufacturers passing bingo-card inquiry leads to you? Follow them up, preferably with a phone call.
- Stress the importance of good microphones (especially directional ones) to good live recording. Point out that even cheap recorders benefit.
- Submit shots of your most original custom installations to the high fidelity consumer magazines; it's good publicity if they run them. You might even milk it further with a press release to the local papers.
- Peg a promotion around a visit from a manufacturer or his chief engineer, especially if they're bringing out a newsworthy product.
- Use newspaper classified ads to offer your used specials. This not only builds traffic—it also sells the equipment.
- Clinch undecided sales by offering equipment on a rental basis, with the rent applicable to the purchase price.
- Check out new business firms as possible markets for FM sets, intercoms, tape recorders.
- Don't ignore radio as a sales-builders FM reaches more audiophiles and music-lovers than any other medium, and AM "good music" programs are the spots to pitch FM's advantages.

Products for profits

Sherwood ups S-9000 power

MODEL: S-9000a 160-watt stereo integrated amplifier. SOURCE: Sherwood Electronic Laboratories, Inc., 4300 N. California Ave., Chicago, III. 60618.

Power on Sherwood's S-9000 (billed as the industry's first all silicon amplifier-preamplifier) has been increased in the —a model to 160 watts of music power at 8 ohms (120 watts



continuous sine wave, both channels driven) with distortion at less than 0.3%, according to Sherwood. (Distortion is listed at 0.1% or less below 10 watts, with 46 db of feedback.) New circuitry also extends phono input capacity to 250 mv (with sensitivity at 1.8 mv).

University has new slant

MODEL: Mediterranean 3-way speaker system. SOURCE: University Sound, 9500 W. Reno, Oklahoma City, Okla. 73101.

University has adopted a different approach in designing the Mediterranean. According to company spokesmen, they began with the premise that the way to get fine furniture in their cabinetry was to go to a fine furniture house for the cabinet and



design a speaker system to match it. Using Cheatham's Contigo octagon commode table as the starting point, they have designed a speaker system consisting of a 12" woofer, an 8", solid-back mid-range unit, and a horn tweeter, with continuously variable brilliance and presence controls and a 3-position bass switch.

In tailoring the system to its housing, University has applied their Radiation Resistance Loading Principle, using 4" of damping material in a special configuration for damping, aided by the inherent rigidity of the shape. Finishes available are grained butternut with antiqued pumice brown or lacquered antique white.

Big ones from Oxford

MODEL: 12U10 heavy duty speaker. SOURCE: Oxford Transducer Co. div. of Oxford Electric Corp., 3911 S. Michigan Ave., Chicago, III. 60653.

A new 12" speaker, said to handle up to 100 watts of music power, and



usable as a woofer or full-range speaker, has been introduced by Oxford. The speaker has a 3½-lb. Alnico V magnet, 3-inch diameter voice coil, built-in heat sink and rear vent for air relief, according to the company. A larger model, 15U10, is a 15" speaker with the same specifications.

H-K changes SR-900

MODEL: SR-900B 100-watt receiver. PRICE: \$449 (\$454 in Zone 2). SOURCE: Harman-Kardon, Inc., 15th & Lehigh Ave., Philadelphia, Pa. 19132.

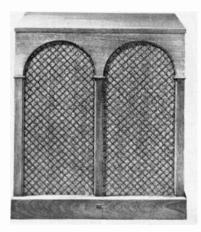
Improvements included in the B models of the SR-900 (starting with

serial #1510101) include power rating of 100 watts, a tuning meter that is easier to read than its predecessor, a new multiplex indicator, and new frequency response (5 to 60,000 hz), according to H-K.

New style for Bozak

MODEL: Century and Moorish Enclosures. SOURCE: R. T. Bozak Manufacturing Co., Box 1166, Darien, Conn

Two new styles have been added to Bozak's line, bringing to five the number of stylings available to enclose loudspeaker systems. New are the



Century and Moorish motifs. Century is contemporary, with pedestal rather than legs, and with vertical stripes on the speaker grille cloth. Moorish uses rounded arches to "reflect the warmth and grandeur of ancient Spain." Like the urban, Italian Provincial and French Provincial stylings, the new models are available in walnut, cherry and mahogany, and in four finishes: matte, cherry, light friutwood and dark fruitwood.

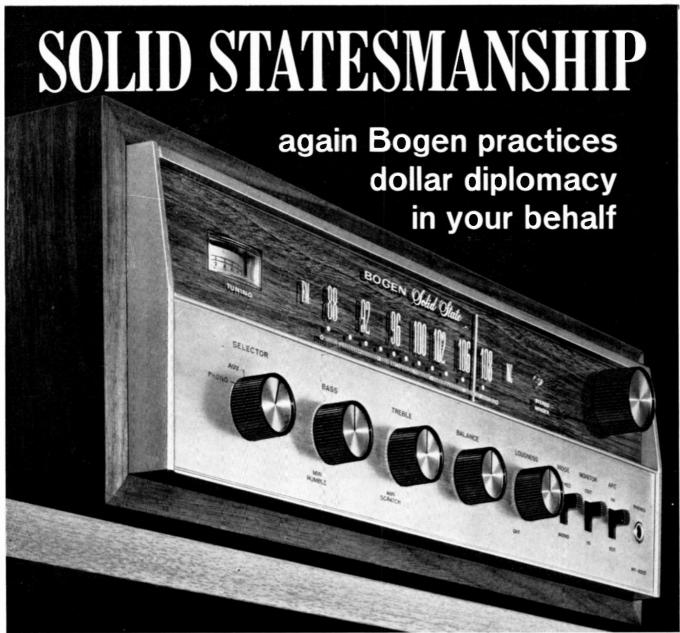
Littlest pageboy

MODEL: Pagemaster Rec∉iver. SOURCE: Bogen Communications Div., Lear Siegler, Inc., Paramus, N I

A compact receiver, the "smallest selective radio paging receiver in the world," according to the company, has been developed by Bogen. It can fit in the palm of the hand. "We've been able to reduce the size, increase the range, improve performance and vet keep the receiver compatible with all existing Pagemaster systems," says David W. Sherwood, Bogen's director of engineering systems sales. Pagemaster is a personal paging system employing a transmitter, encoder and transistorized receiver. When a person is paged his receiver beeps until the page is answered by telephone.

-More Products on page 66

JANUARY, 1966



Steering the difficult, but rewarding course that starts with designing superb transistorized circuitry, continues through painstaking manufacture and results in outstanding products at a realistic price. That's Solid Statesmanship - the fine art that Bogen inaugurated over ten years ago with the industry's first solid state amplifiers. And it's what now makes possible the magnificent new RT4000.

The RT4000 looks as though it should cost a lot more. And it performs as though it does. (Because we don't stint on the inside, either.) Ample power (40 watts IHF) to drive any speaker system. FM sensitivity to pull in and hold any station you'll get on any other receiver. Frequency response ± 1 db from 15 to 30,000 cps. Plus every feature you really need: instrument-type tuning meter, Stereo Minder signal, automatic switching when station broadcasts in stereo, AFC, front panel phone jack, tape monitor, smooth flywheel tuning.

We don't cut corners on longevity either. The RT4000 boasts the same kind of reliable circuitry that has made our RT6000 one of the most dependable performers of all time.

Bogen's thirty-three years of experience, ten of them in Solid Statesmanship, are your assurance (to put it in very undiplomatic terms) that we never have to pass the cost of failures along to you. Just the savings.

BOGEN's new RT 4000 Solid State 40 Watt FM-Stereo Receiver only \$27995*

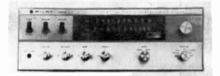
COMMUNICATIONS DIV (151) LEAR SIEGLER, INC.

Paramus, New Jersey

Products from 64 Pilot shows 40-watter

MODEL: RA-300 transistorized stereo receiver. PRICE: \$339.95. SOURCE: Pilot Radio Inc., 100 Electra Lane, Yonkers, N.Y. 10704.

The RA-300 AM/FM stereo receiver introduced by Pilot is rated at



40 watts IHF music power and, according to the company, has an overall frequency response of 15 to 40,000 hz, harmonic distortion of less than 0.5%, and tuner sensitivity of 3.5 microvolts. Stereo separation is reported to be better than 30db. The unit has five pair of inputs: 2 phono, tape head, tape monitor and aux. Front panel controls include seven-position function selector, volume, balance, bass, treble, tuning, contour and tape monitor. Model R300 has the same listed specifications but without AM tuner and is priced at \$299.95.

Whitecrest in new field

MODEL: W-2 Loudspeaker System. PRICE: \$69.50 (slightly higher in the West). SOURCE: Whitecrest Industries, Inc., 251 E. 139th St., Bronx, N.Y.

A new shelf-type speaker system from Whitecrest, the W-2, is a twoway system with an 8-inch edge damped reinforced low and mid-range driver and a plastic domed spherical

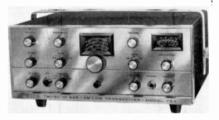


tweeter, the company reports. The unit is 18" high, 12" wide and 9½" deep. It is listed as having a frequency response of from 30 to 20,000 cps. and its power handling capacity is rated at 30 watts. It is an 8 ohm impedance system sealed and guaranteed by the company for five years.

Eico expands CB line

MODEL: 753 tri-band transceiver. PRICE: \$299.95. SOURCE: E!CO Electronic Instrument Co., Inc., 131-01 39th Ave., Flushing, N.Y. 11352.

A 3-band SSB/AM/CW transceiver for use on the 20-, 40- and 80-meter amateur radio bands has been introduced by Eico. It is designed to be used at fixed locations or as a mobile station on a vehicle or boat, for man-



ual push-to-talk or automatic voice controlled (VOX) radio-telephone operating, or for radiotelegraph communication employing grid block keying. The transmitter uses a pi network to enable matching into 40-80 ohm antenna systems, and power output is rated at 120 watts PEP for both SSB and CW and 30 watts for CW, according to Eico. A kit version is priced at \$179.95.

-More Products on page 72

JANUARY, 1966

EVERYBODY SEEMS TO LIKE TANDBERG

"A quality instrument of the first order . . ." William Morgan, 6 Broadview Terr., Norwalk, Conn. ". . . Excellent in quality and dependability . . . we are very well satisfied." Eugene O'Neill, Professor, St. Michael's College, Winnosko, Vt. ... Finest ever offered for home use." Tasso Spanos, Pres. Opus One, 225 Oliver Ave., Pittsburgh 22. "... Musical reception at its best." Mrs. Anne Skolnick, 1475 Sheridan Ave., Bronx, "... Everything your ad claims it to be—and more." S. R. Gaylord, 29944 Minglewood La., Farmin inest tape recorder available Soxville, Tenn. "... Use in anything approach and reproduction 221 Rockbeach Rd., Rochester, N.Y. Najman, 12 Lowndes Ave., So. Norwalk. tremendously." Fr. John Debski, St. Rose with this unit . . . the finest that can be have an, 11 Briarwood Crescent, ridelity." W. Z., N. Y. banker. Newburgh, N. Y. "... I am amaze. ". . . Letting you know of my gratitue enjoyment and pleasure l feel from your Tandberg." Otto Weiss, 2435 Creston Ave., Bronx 63, N. Y. "Seldom . . . as enthusiastic over a purchase as my Tandberg." "I would trade my Tandberg only for another Tandberg." E.F.W., N. Y. attorney. ". . . lts reproduction of voice and music is second to none." Albert Messock, 44-14 New Town

RETandberg of America, Inc., P. O. Box 171, 8 Third Ave., Pelham, N. Y. outstanding for BETTER, CLEARER, MORE NATURAL SOUND! The new Empire Grenadier is the world's most perfect speaker system. If there is any doubt in your mind, take a seat and listen...





MODEL 8000P

YOU **MAKE MORE MONEY** with MtIntosh

NOW! Eric Audio Components* GUARANTEED for LIFE!

Eric Electronics Corporation offers the industry's FIRST life time guarantee on the workmanship of their all transistor audio components.

These sales extras will build quick and substantial profits:
LIFE TIME GUARANTEE = MADE IN AMERICA = PRICE COMPETITIVE TO IMPORTED MODELS = INDUSTRY'S LARGEST
DISCOUNT



PLAINSMAN 225AF

This all transistor integrated receiver incorporates an AM-FM (MX) tuner, Multiplex adapter, two 25 watt amplifiers and two pre-amplifiers on a single chassis. Loaded with extras usually found only on more expensive audio components. List price including attractive enclosure \$259.

PALOMINO 225

Identical to the Plainsman except AM tuning section is omitted. List price including enclosure **\$229**.



ST-100 TUNER

All transistor FM Multiplex Tuner includes such extras as automatic switching, tuning meter and Multiplex light.

Compact size of 2.5%" high by 10½" wide by 7" deep.

List price including enclosure \$99.



SA-40P AMPLIFIER

All transistor stereo amplifier (10 watts per channel IHF). Includes inputs for record players with magnetic cartridge and tape decks as well as outputs for off-air recording. Size and finish match ST-100.

List price including enclosure \$89.

MANUFACTURED IN U.S.A. BY

Eric Electronics

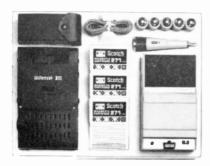
Corp. 2115 COLORADO AVENUE, SANTA MONICA, CALIF. 90404.

•GUARANTEE APPLIES TO GOLDEN WEST SERIES ONLY.

Why did Wollensak wait so long to bring out the new 4100 Cordless Cartridge Tape Recorder?



Because when you're the leader, you can't afford to offer anything less than the best.



The new Wollensak 4100 Cordless Cartridge Tape Recorder is packed with features that play back profits. It's the tape recorder for everyone: The businessman, student, parent or hobbyist. What are its sound selling points? 1. Compact tape cartridges that load in seconds . . . no threading necessary. 2. Plays anywhere on its own batteries. 3. Easy to operate — one 4-position switch controls entire operation. 4. Remote control from microphone switch. 5. VU meter indicates correct recording level and condition of batteries. 6. High efficiency speaker with remarkable reproduction. 7. Constant tape speed capstan drive — 17/8 IPS. 8. 2-track operation for one full hour of recording. 9 Built for rugged dependability.

10. Weighs only three pounds. 11. Solid-state for reliability and instant warmup. And the new Wollensak 4100 Cordless comes complete with a quality dynamic microphone, a handsome deluxe vinyl carrying case, three SCOTCH® Brand Magnetic Tape cartridges and batteries. Order the UDILENSAK ST. PAUL. MINNESOTA 55119

THE BEST WAY TO SELL! **SHOW AND TELL!**



The total, lively ctrifying sensation





NEW! 7 for GDP* in '66 -SEVEN Color-full, Tell-full and Sell-full point-of-sale posters and catalogs. PLUS — a DYNAMIC, NEW Direct-Mail exposure program motivated by prizes for customers and your salesmen and extra-profit MUSTANG BUCKS for you!

*Greater Distributor Profits

ART GAINES COMPANY

Get this potent package now! Phone your University Sales Representative — here's his number:

DON H. BURCHAM COMPANY Portland — 503 266-4148 Seattle — 206 284-1121 **BUTCHART-RATHSBURG & ASSOC.** Detroit — 313 882-1717 BERNARD L. CAHN & ASSOC.

San Francisco — 415 SU 1-7981 EARL ASSOCIATES

Honolulu — 815-649
FORRISTAL-YOUNG SALES CO.
Kansas City — 816 JE 1-5330
St. Louis — 314 MI 5-2360
Cedar Rapids — 319 364-0408
LES A. MORROW COMPANY

Cleveland — 216 CL 1-5700 Pittsburgh — 412 221-4676 GEORGE PETITT COMPANY, INC. River Forest — 312 CO 1-0342

Pewaukee — 414 691-0622 East Peoria — 309 699-3301 WAXMAN-CURRANT SALES, INC. Buffalo - 716 TR 3-0442

MARTIN WEINBERG ASSOCIATES Philadelphia — 215 LI 9-1122

Wheaton - 301 933-2550 BERT GEDZELMAN & ASSOC. Spring Valley — 914 356-3477 THE HEIMANN COMPANY, INC. Minneapolis — 612 827-5457 Fort Dodge — 515 576-2374 HOLLINGSWORTH & STILL, INC. Atlanta - 404 261-5838 Orlando - 305 241-5401 Charlotte -- 704 523-3327 MARSHANK SALES COMPANY Los Angeles — 213 WE 8-2591 FRANK J. McSWEENY & ASSOC. Indianapolis - 317 547-2112

R. & D. SALES COMPANY Denver — 303 934-5445 R.E.P., INC. Yonkers — 914 YO 3-0150

THE TEXPORT COMPANY Dallas - 214 ME 1-6270 Houston — 713 HO 5-3031 Memphis — 901 363-4160

LISTEN-UNIVERSITY SOUNDS BETTER



Products from 66 Maggi has new dress

MODEL: 1020 stereo tape recorder, PRICE: \$570. SOURCE: Magnecord Sales Div., Midwestern Instruments, Inc., Tulsa, Okla.

The 1020 tape recorder is transistorized and offers an hysteresis synchronnous capstan drive motor, two permanent split capacitor reel drive motors, two VU meters and a die-cast

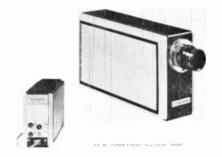


mainplate. The unit accepts reels to 81/4-inches, has a digital counter with push-button reset and dual headphone jacks. It comes with a polished walnut base. Styling is consumer-oriented, as contrasted to the business-like appearance of other models from the company.

Low-cost auto eye

MODEL: MTC-12 solid state camera for CCTV. PRICE: Less than \$300. SOURCE: Concord Electronics Corp., 1935 Armacost Ave., Los Angeles, Calif 90025

Concord lists as "a major price breakthrough" their new MTC-12 camera, which will be shipped out early this year. The compact (3" x 5¼" x 938") unit is built for continuous operation, with automatic adjustment to changing light conditions. It connects directly to the antenna



terminals of a regular TV set and produces its image on Channel 5 or 6, with remaining channels undisturbed. It uses a 7735A vidicon tube and comes equipped with an f/1.8, 25mm C-mount lens. 10 ft. of AC cord and 1 8ft. of coax are included, together with a 75- to 300-ohm matching transformer.

-More Products on page 74

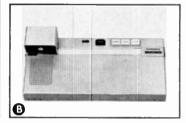
JANUARY, 1966

CONCORD ELECTRONICS

PRESENTS

SIX IMPORTANT NEW COMMUNICATIONS PRODUCTS













NEW MARKETS · MORE SALES · MORE PROFIT

AUTOMATIC CLOSED-CIRCUIT TV CAMERA, MODEL MTC-12 USER NET \$299.50

Now Concord breaks the closed circuit television market wide open. A quality solid-state closed-circuit TV camera for under \$300 creates an entire new market for closed-circuit TV for industrial and commercial applications. At this low price, no store, factory, warehouse, or industrial plant can afford to be without it. Operates with any television receiver or video monitor.

INTERWRITER, MODEL NV-101

USER NET \$765.00

The intercom on which you write or talk. All-solid-state electronics. Operates on facsimile principle. Provides perfect transmission of written messages. Easy two-wire installation. Write with any pencil. Widely used in hotels, motels, factories, hospitals, airports for transmitting important communications.

© CORDLESS PUBLIC ADDRESS SYSTEM, MODEL WX-8510 USER NET \$350.00

This public address system completely eliminates trailing wires, giving the user absolute freedom of movement unrelated to position of loudspeaker. Small battery-powered condenser mike transmits FM signal to solid-state receiver-amplifier. Volume is great enough to cover 200 people. The output can be plugged into existing PA system. You have a ready-made market in churches, sales meetings, schools, auditoriums, outdoor rallies, picnic groups. Receiver-Amplifier operates on both AC and battery.

Economy Version, Model WX-8010, Cordless Microphone System ... USER NET \$179.50

• WIRELESS SOLID-STATE INTERCOM, MODEL VK-202 USER NET \$29.95

For convenient and easy inter-office communications without wiring. Two selectable channels provide for multiple unit installation. Solid-state reliability, advanced-design circuitry. No noise on standby. Ultra clear transmission. The market—offices, restaurants, schools, supermarkets, theatres, home.

1 TRANSCEIVER, MODEL TG-132-B

USER NET \$79.50

Because of its high-efficiency transmitting antenna with built-in coil and advanced-design circuitry, the Concord TG-132-B transceiver works where others have failed...outperforms all others. This rugged, two-channel communicator has a ready market for business and commercial uses. Its full 1-watt RF power and built-in variable squelch control makes the Concord TG-132-B ideal for construction crews, surveyors, security guards, foresters, hunters, plant maintenance, glider pilots, and all types of sporting events.

♠ TRANSCEIVER, MODEL TG-093

USER NET \$39.50

Proved by comparison tests to be the best-performing 100-milliwatt transceiver on the market. Greater transmission range with patented center-loaded antenna. Rugged reliable construction, metal case. A precision instrument not a toy.

--- SEND IN THE COUPON NOW!----

Mr. John Pacconi, Jr., Manager, Industrial Products Division CONCORD ELECTRONICS CORPORATION Dept. TN 1 1935 Armacost Avenue, Los Angeles, California 90025

Dear Mr. Pacconi

Yes, I want more details on Concord's profit-packed Dealer Franchise Program and information on Concord's six brand new products.

- ☐ Please send complete information
- ☐ Have your representative call

MY NAME

TITLE

FIRM NAME

ADDRESS

CITY

STATE

ZIP



Concertone dealers are excited over the new 800 series line, featuring "3+3" Reverse-o-matic ®—the most versatile totally automatic tape reversing system in professional quality recorders available today.

Concertone's Reverse-o-matic ®—a three-head plus three-head system—insures completely automatic operation for record and play in both directions. Its simultaneous playback feature while in the record mode provides an excellent off-the-tape monitoring system—automatically!

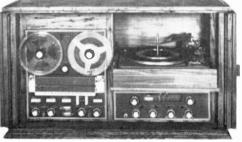
The new Concertone Model 804, shown above, is a complete professional tape deck, selling for under \$400. Also available with portable case, plus separate monitor amplifiers is the new Concertone Model 803; and for a new look in a complete home entertainment center, see the new Concertone Model 814 Audio Composium. Dealers:

Get the Inside Story on Concertone's new 800 series. Write today to:

CONCERTONE, 9731 Factorial Way, So. El Monte, Calif.

From one great performer to another!

CONCERTONE CONGRATULATES
HIGH F DELITY TRADE NEWS
ON ITS
10th Anniversary!



CONCERTONE MODEL 814 --- AUDIO COMPOSIUM

Products from 72 JBL sports marble

MODEL: Lancer 101 loudspeaker system. PRICE: \$354. SOURCE: James B. Lansing Sound, Inc., 3249 Casitas Ave., Los Angeles, Calif. 90039.

The Lancer 101 is described by JBL as being "of moderate size" but having "a dynamic range of no other speaker system of its size." The design uses a 14-inch long-throw Linear

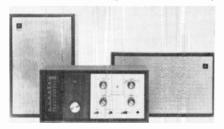


Efficiency woofer and a horn-loaded high frequency assembly with a 14-element acoustic lens. Its cabinet, with a carved fretwork grill, is available in oiled walnut or tawney walnut, capped by a slab of imported Adriatic marble. It is also furnished in a self-powered (Energizer) model.

Scott's newest compact

MODEL: Stereomaster 2400 FM/stereo recevier system. PRICE: \$299.95. SOURCE: H. H. Scott, Inc., 111 Powdermill Rd., Maynard, Mass.

Scott's Stereomaster 2400 is compact, yet includes all the controls necessary for adapting sound reproduction to the requirements of any



room area, according to the company. Encased in a hand-rubbed, oiled walnut cabinet with two atching low resonance speaker systems, the model is said to offer a unique crossover network and provisions for connecting a tape recorder, stereo record changer or stereo earphones. Record play is also available.

-More Products on page 76

WE AREN'T AFRAID TO PUT A FIVE YEAR WARRANTY ON THE REK-O-KUT R-34 TURNTABLE



You don't find many 5 year warranties in the audio business. It's a shame, isn't it? Well, we're not afraid of it. The Rek-O-Kut R-34 is made to last . . . and our five year warranty proves it.

The quality to support it is built into the R-34. Hysteresis synchronous by Papst is normally found only in more expensive units. Exclusive Rekothane belt is ground to precision tolerances to reduce noise and rumble minus 6 d b lower than any other belt. One-piece cast aluminum table is dynamically balanced with weighted rim for perfect rotation at constant speed. And more, too. You'll give your customer real value at \$89.95 with tonearm and base. Ask your Rek-O-Kut rep.

> **REK-O-KUT** KOSS

2227 N. 31ST STREET MILWAUKEE 8, WISCONSIN



speakers. They embody all the fine high quality features that are needed for critical performance. Extremely heavy ceramic magnets give the extra power handling ca-pacity needed for today's wide range reproduction. Units also feature Oxford's exclusive, "Floating Suspension Surround", a resilient, permanently flexible edge which extends the low frequency spectrum without undesirable "hangover". Clean transient responses are assured with smooth mid-range and brilliant high frequency response.

Various models available including: 12-in. with built-in electrical cross-over; 12-in. with built-in whizzer and mechanical cross-over; 8-in, with built-in electrical crossover; 8-in. with built-in whizzer and mechanical cross-over, and a 6 x 9-in. with a built-in whizzer and mechanical cross-over. For a new high in high fidelity speaker per-formance at a new low in prices, write for complete information today!

OXFORD/TRANSDUCER COMPANY / A Division of Oxford Electric Corporation

3911 S. Michigan Ave. Chicago, III. 60653

Products from 74 Communications for E-V

MODEL: E-V 619 base-station microphone. PRICE: \$47.50. SOURCE: Electro-Voice, Inc., Buchanan, Mich. 49017.

The 619 base station, press-on-talk microphone was designed by Electrovoice for ham, CB, business com-



munications or paging uses. A touchto-talk bar operates a telephone-type leaf switch. A dynamic mike, the company reports it offers peak-free response from 70 to 10,000 hz at -57 db. It weighs 2 lbs. and is omni- directional. Model 719 is a ceramic version which is listed for 80 to 7,000 hz at -56 db, at \$27.50.

AIWF goes wireless

MODEL: AIWF Wireless Microphone System. SOURCE: Alan I. W. Frank Corp., 4 Gateway Center, Pittsburgh, Pa. 15222.

Frank's new wireless microphone system contains crystal-controlled transmitter and receiver. The company reports that the Model 50 FM transmitter is FM modulated, has solid state circuitry, operates on a 9v Mercury battery for 25 hours with an effective range of up to 5,000 ft. It is $2\frac{1}{2}$ " x 3" x $\frac{1}{8}$ " and weighs 8 ounces. The model 300 receiver is reported as having a sensitivity 1/2my for 20 db quieting and has both hi and lo Z outputs for connection to any PA system.

Califone guitar amp

MODEL: 1907RP battery/AC guitar amplifier. PRICE: \$159.95. SOURCE: Rheem Califone Div. of Rheem Mfg. Co., 5922 Bowcrotf St., Los Angeles, Calif. 90016.

A battery-operated, portable guitar amplifier for use at beach or ski parties, picnics, etc., has been introduced by Rheem Califone. The unit's battery is recharged when the amplifier is plugged into a 110 outlet during indoor use. The company reports it has



20 watts of power and "transistorized tremolo."

Budget tag from Concord

MODEL: F-20 battery-operated portable tape recorder. PRICE: Less than \$30. SOURCE: Concord Electronics Corp., 1965 Armacost Ave., Los Angeles, Calif. 90025.

A compact, battery-powered tape recorder to retail for under \$30 has been introduced by Concord. Its



manufacturers describe it as having a remote control microphone, miniature solid-state circuitry and a record capability of 30 minutes on a 23%" reel.

Cardioids from Geloso

MODEL: Geloso cartridge cardioid microphones. PRICE: \$21.75 (professional net). SOURCE: American Geloso Electronics, Inc., 251 Park Ave. So., New York, N.Y. 10010.

Various models of Geloso microphones are available for public speakers, reporters, entertainers or studio uses. Cordiod, 60° pattern directional, the mikes have built-in jacks for direct connection to a gooseneck holder, a flexible cable or a rigid support.







To help you sell

Rack holds tapes

A new stereo tape rack, designed to display more than 300 prerecorded tape albums in one compact unit, is offered to dealers by Ampex. The BD-350 Stereo Tape Merchandise



Rack is available to Ampex Stereo Tapes dealers at no charge with the purchase of 350 prerecorded tapes; or it is available for outright purchase at \$60. The unit may be had for \$40 with an order for 100 tapes or for \$20 with an order for 200.

'Cartridge Caddy' offered

Just as an angler should have a tackle box, a hunter his gun case, a philatelist his stamp album, the "compleat" audiophile should not be without the proper storage facilities for his collection of phono cartridges, according to Shure Brothers, Inc. The company is currently offering a custom-designed, plastic foam-lined compartmentalized Cartridge Caddy as a premium for \$4.95 and proof of purchase of a Shure cartridge or stylus. Counter display cards have been offered to dealers who wish to call attention to the offer.

Mailers from Altec

Altec Lansing has recently printed up stuffers on two products. One covers the Valencia speaker systems (846A and 849A); the other is on the 100A Bass Energizer. They are 31/4" x 6", printed on stock with a glossy, colored finish on one side, but white and easily imprinted or stamped with the dealer's name on the reverse.



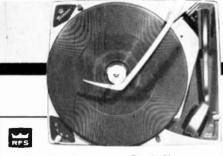
Finco cuts shipping costs

Finco has announced a series of all-aluminum Parabolic UHF Antennas, featuring very sharp polar pattern and extremely high gain. An important feature is the patented folding design that reduces carton dimensions to one-fifth of the size normally required to ship Parabolic antennas. The savings, in delivery, storage, and customer handling is said to cut ordinary costs by more than 50%. The 5-ft. model even qualifies for parcel post shipment.

THIS IS THE ONE THEY'VE BEEN ASKING FOR!

BALFOUR) Princess

automatic/manual turntable systems



RFS Industries, Inc. Dept. N 102 Harbor Road, Port Washington, N.Y.

I am interested in a Princess dealership!

City State Zip



Exclusive

- Built-in Stylus Brush
- **Automatic Tone Arm Lock**
- **Built-to-last British Quality**
- Low Wow & Flutter

AND THESE ARE THE PLUS BENEFITS YOU WANT . . .

- Healthy Mark-ups
- Popular Pricing
- **Outstanding Ad Support**
- Maintenance-free Performance

See the RFS Sales Representative in your area or write!

RFS Industries, Inc. Pt. Washington, N.Y.

Continuing to serve you . . .

METROPOLITAN SALES CO.

95-13 218th Street Queens Village, N. Y. 11429

(212) 464-4477 -4503 -4975

Jay Menduke

Lester Klein

Gerry Fisher

Sid Krinetz

Bob Steindler

Sony catalogs mikes

Condenser and dynamic microphones, with prices ranging from \$17.50 to \$635.00, are featured in the new Sony catalog mailed by Superscope, U.S. distributor of Sony tape recorders and accessories. The illustrated catalog contains facts on instruments designed for use in radio and TV stations as well as for home. school and office use.

Tape cartridge pricecut

Prices of cartridges, empty or loaded with raw tape, have been reduced by Viking of Minneapolis. List price of the smallest, M4 cartridge is reduced from \$4.25 to \$3.75. The M6 drops from \$6.75 to \$6 and the large M8 from \$7.25 to \$6.50.

Scott explains FET

Engineers from H. H. Scott, Inc., in cooperation with Texas Instruments, are holding technical seminars around the country on field effect transistors, presently incorporated by Scott into their 315 FM tuner, 342 receiver, and 388 AM/FM receiver.

Promoting tape use

A brochure called Everybody's Tape Recording Handbook has been published by Sarkes Tarzian Inc. In an informal manner, the 24-page booklet covers such topics as selecting magnetic recording tape, tips on recording, care of tapes, choosing a tape recorder, and caring for a tape recorder. The topics are designed to be helpful to tape recorder owners and to prospective purchasers. The booklet also presents thirty ideas for new uses for your tape recorder, including hobby uses, educational uses, and business uses.

Individual copies of the booklet are available free on request from the Magnetic Tape Div., Sarkes Tarzian Inc., E. Hillside Dr., Bloomington,

Help on inventory

"How to Price Inventory" is a 4-page bulletin being offered free to electronic distributors to help them price their inventory for tax purposes. Write on your letterhead to United Technical Publications, 645 Stewart Ave., Garden City, N. Y. 11533.

Murals cataloged

The musical murals mentioned in this column some months ago now appear in a 16-page catalog ("Opera and Ballet Murals") from James Seeman Studios, Inc. Write them at 50 Rose Pl., Garden City Park, N. Y. 11041.

IN THE NEW ENGLAND STATES, IT'S

MICHAEL SCOTT CO. INC.

Wellesley Hills, Mass. 02181

REPRESENTING:

British Industries Corp. Bogen Communications Div. EICO Electronic Instrument Co., Inc. Pickering & Co., Inc. Electro-Voice Inc. Viking of Minneapolis Inc. **Telex Acoustic Products** Marantz Co., Inc. Norelco Tape Recorders

Serving High Fidelity Component Specialists Since 1949

COVERAGE IN DEPTH

Six Men Seven Lines

REPRESENTING:

Empire Scientific Jerrold Perma Power **Rockford Special Furniture** H. H. Scott Superscope **United Audio**

COVERING:

Eastern Pennsylvania Southern New Jersey Delaware Maryland **District of Columbia** Virginia



Estersohn Associates

MANUFACTURERS' REPRESENTATIVES 1016 Bethlehem Pike Philadelphia, Pa. 19118 215 AB 3-2900



You'll sell more tape, more easily and more profitably, with this special Tarzian promotion.

You can offer this good-looking convenient tape storage rack (a \$1.98 value) to your customers, free with the purchase of 3 reels of top quality Tarzian Tape. A wonderful bargain, a great gift item, an excellent tape-recorder tie-in-a deal with real market appeal.

The three reels are pre-packaged in the rack, in individual cartons. Just set one on your counter and watch your customers snap this deal up! (An attractive counter card is enclosed in each master carton of six deals.)



When you buy three dozen reels of Tarzian tapeat the especially attractive 96 reel price—you get twelve tape racks free in this spectacular limitedtime offer. Order today, or get full details from your Tarzian Tape rep.

SARKES TARZIAN, INC.

World's Leading Manufacturers of TV and FM Tuners
Closed Circuit TV Systems Broadcast Equipment
Air Trimmers Semiconductor Devices MAGNETIC TAPE DIVISION . BLOOMINGTON, INDIANA Export: Ad Auriema, Inc., N.Y.
Canada: E. J. Pignott Enterprises Ltd., Toronto, Ont.

80 HIGH FIDELITY TRADE NEWS

TAPES FOR DEMO AND SALES

HERE, chosen on the basis of sound quality and effectiveness for demo purposes, as well as for sales items, is a selection of tapes currently available in the Ampex catalog.

Britten: Cantata Misericordium/Sinfonia da Requiem (Pears/Fischer-Dieskau)

London 90108 Bellini: Arias (Sutherland) London 90109 Mozart & Schumann: music for 2 pianos (Frager/Ashkenazy) London 80168 Spanish Orchestral Classics (de Burgos)

Handel: Concerti Grossi Mantovani Ole

London DP-80167 Archive 2R-3246 London 70101

If you want to demonstrate today's quality at 3-3/4 ips, try these:

Tijuana Brass: Volume 2/The Lonely Bull ABC-Paramount DP3-851 The Definitive Jazz Scene, Vol. 2

Impulse 3-313 Shirley Scott: Queen of the Organ/Everybody Impulse 3DP-314 Loves a Lover John Gart: Far Away Places/Beyond the Sea Kapp 3DP-41101

from 28 News

HVR orders cited by Ampex

In announcing record sales and profit figures for the first half and second quarter of fiscal 1966 (ended Oct. 31st), Ampex Corp. chief exec William Roberts singled out as drawing particular interest the VR-2000 broadcast color video recorder, the Videofile document system and the new home video recorder, introduced in the first weeks of the third quarter. "More than \$2,000,000 in orders were written in the first two weeks," he said.

Audio Devices adds directors

Oscar Kimelman and Thomas F. Reedy, Ir. have been elected directors of Audio Devices, Inc.

Dynascan gets Precision

Precision Apparatus, Inc. has been bought out by Dynascan. The test equipment line of the Glendale, N.Y. company will continue to be marketed independently of Dynascan's B & K

Darmstaedter in Far East

Dr. Eric Darmstaedter, president of Tandberg of America, is back from three weeks in Vietnam, Thailand and Japan. Among his activities: promoting recorder use in Vietnamese educa-



34 W. Interstate St. . Bedford, Ohio



Sell From for a sound future!

tion, surveying Japanese products (including TV cameras and recorders).

Don Jones named

McMartin Industries has appointed Don Jones district sales manager (out of Dallas) for 14 southeastern states, from Virginia to New Mexico.

Two named by Reeves

Paul D. Miller and Rex F. May have joined the field sales engineering force of Reeves Soundcraft, Miller in the northwest, May in Texas. Both will handle computor and video tape and government sales of sound tape.

Exports up; imports more so

Department of Commerce figures released in December show a rise in the nation's exports to \$26 billion with imports up to \$20.8 billion, cutting the 1964 trade surplus of \$5.2 billion to \$1.6 billion; while exports were climbing 31/2%, imports jumped 131/2%.

3M names 3 men

Under new Magnetic Division sales structure, 3M audio and video tapes are being handled by regional sales managers, with matching posts for magnetic film-computor-instrumentation sales. Just named to the videoaudio spots are Sidney M. Alder in Los Angeles, John B. Hanks in Philadelphia and John C. Traynor in Chicago.

BSR moves headquarters

New home for BSR (USA) Ltd. is in 18 acres of Rockland County-on



Route 303 in the Blauvelt section of Orangeburg, N.Y. The new building ups floorspace to 125,000 sq. ft.

Arrow plans N. J. site

Arrow Electronics has announced plans to cross the Hudson from its present locations in metropolitan New York and Connecticut with 7,500 sq. ft. in Totowa, N.J., 5 miles west of Clifton on U.S. 46.

Pessok promoted at STC

Stanley Pessok has been upped from advance device development mgr. at Silicone Transistor Corp. to the newly created post of director of manufacturing.

-Continued on page 84

To All Fine Audio Dealers From Whitecrest Industries. Inc.

CHECK OUT THESE FIVE UNBEATABLE FACTS FOR GREATER SPEAKER

SYSTEM PROFITS

Fact 1—TOP TEST-RATED PRODUCT

Fact 2—HIGHEST MARKUP

Fact 3—LIMITED FRANCHISES

Fact 4—NATIONAL AND LOCAL ADVERTISING

Fact 5—MATCHLESS VALUE

Then--AT OUR EXPENSE

check out the superb NEW WHITECREST W-2, the first of a group of extraordinary Speaker Systems.

Whitecrest Industries, Inc. 251 East 139 Street, New York 10451 Att: Jack Kufeld, Sales and Marketing V.P.

Ship m	e a	pair	of	W	hitecr	est	W-2	Spe	aker	Syst	ems
for our	eva	luatio	on,	at	your	exp	ense,	as	state	ed in	this
ad.											

	ı	would	like	more	information	about	Whitecrest	W-2
	S	peaker	Sys	tems.				
DFAL	FR	NAME						

ADDRESS			
CITY	STATE	ZIF	CODE
ATTENTION OF:		TITLE	

REPS: WRITE AT ONCE: A FEW CHOICE TERRITORIES STILL OPEN!



Insertion rate: \$15 per inch, one time; progressive rates available. Includes blind box if desired.

Address orders and inquiries to Classified Section, High Fidelity Trade News, 25 West 45th Street, N. Y., N. Y. 10036

"Servicing the Latin American Markets as an Electronic Rep organization."

MAN-REP CO.

P. O. Box 429 No. Miami Beach, Fla. 33160 (305) 945-6901 FAX: GBF

CONGRATULATIONS

for a fine job to the Hi Fi industry from Jack Simon and Jack Fields COMPONENT MARKETERS, INC.

109 Valley Road, Montclair, N.J. from New York: (212) WO 2-3318 from New Jersey: (201) 746-6717-8

B. L. CAHN & ASSOC.

420 Market Street San Francisco, Calif. 94111 (415) 781-7981

> "We merchandise the lines we sell the trade."

STANG SALES CO.

271 Columbus Ave. Tuckahoe, N.Y. 10707 (914) SP 9-6868

LINES WANTED-NORTHERN CALIFORNIA

Established agency with warehouse, selling Stores, seeks non-conflicting lines. Open for Receivers, Speaker Systems, Tape Recorders, Cartridges, Furniture or what have you?

Box TD, High Fidelity Trade News

"like mutton and ribs?" "Quite!" "Like Ale & Bitters?" "Rather!" "Ever been to the Pub?" "No" "Pity"

The Pub at Bowling Green.

GILBERT E. MILLER ASSOCIATES

P.O. Box 171, Jericho, N.Y. 11753 Covering Metropolitan New York, New Jersey Tel. (NYC phone): BO 3-0617 HIGH FIDELITY and COMMERCIAL SOUND SPECIALISTS Tandberg, Tapeathon, Truetone, Balfour

SALES EXECUTIVE

for nationally-known hi-fi line is ready to shoulder new responsibilities.

Write Box BK, High Fidelity Trade News

HEATHKIT

Due to national expansion of Heathkit Electronic Center Retail Stores, Daystrom Products Corporation has requirements for following qualified personnel.

RETAIL STORE MANAGERS

NEW YORK CITY WASHINGTON, D.C. Interested individuals should have at least five years retail store management background—a thorough knowledge of electronic retailing and merchandisingmature and sensible customer relations attitude and a willingness to assume complete responsibilities for the operations of a self-sustaining retail operation. A technical background is helpful but not necessary.

RETAIL MARKETING COORDINATOR

This position, located at St. Joseph, Michigan, reports to the Vice President of Daystrom Products Corporation, is responsible for the day to day operation of retail stores and service centers. He will be an active participant in the store site location, personnel selection and training, merchandising and formulation of effective operating controls and policies. The ideal individual will be a college graduate who has progressed through a chain store management or retail training program and is now active in retailing.

We offer an excellent compensation and benefits plan.

Write giving all pertinent information (Include employment history and current salary) to:

W. F. Donahue DAYSTROM PRODUCTS CORP. Box 167, St. Joseph, Michigan An equal opportunity employer M/F

LIKE TO OWN AN AD AGENCY?

Experienced creative ad manager looking for company interested in house ad agency, Have produced outstanding ads, literature, merchandising, for major agencies and hi-fi companies. Write and hi-fi companies. Write Box GOL, High Fidelity Trade News.

USED GEAR INVENTORY TOO HIGH?

All trade-ins on a wholesale basis. We buy . . . sell . . . recondition.

Harmony House, Inc. 147 E. 76th St., New York, N.Y. Tel. 212-RE 7-8766



National Electronics Week May 30th - June 5th San Francisco

JOIN THE GOLD RUSH OF 1966! Hundreds of products on display . . . the products you sell. New items, new promotions, new profit opportunities.

AND FOR THE FIRST TIME: Displays of the products you use . . . equipment and services to increase efficiency, reduce operating costs.

PLUS EXPERT TALENT in Business Forums and Personnel Training sessions designed to help you do your job better.

1966 NEW

PROGRAM FOR PROFITS

Monday, Tuesday, Wednesday— May 30-June 1

Trade Association Meetings and Conventions

Thursday-

June 2

NEW Business Forums
Tours and Teas for your Lady Fair
Old Timers and Young Tigers Cocktail Parties

Friday, Saturday, Sunday-

June 3-4-5

Exhibits in Civic Auditorium
Conferences in Hotel Suites
More Tours and Teas for the Ladies (Fri. & Sat.)

GALA INDUSTRY DINNER DANCE FRIDAY NIGHT 8 P.M.

DON'T MISS THIS GOLDEN OPPORTUNITY

Register Now For 1966 NEW

ELECTRONIC INDUSTRY 100 South Wacker Drive	SHOW	CORPORATION Chicago, III. 60606
Please send me a badge applicati	ion in the a	appropriate category:
☐ NEDA Member ☐ El		
		PLEASE SPECIFY
*Customer = includes distribute or anyone else who buys for resin 1966 NEW.		
Name		Position
Company		
Address		
City, State, Zip Code		

This publication has contributed the space for this advertisement as a service to the industry.

News from 81

Norelco gets new agency

Effective Feb. 25th, Norelco High Fidelity Products advertising will be handled by C. J. LaRoche & Co., the same agency that already handles the rest of Norelco's consumer products.

Tape-Athon names 3 distribs

Tape-Athon background music systems are now being distributed by Elliot Music Co. of Chicago, Tri-State Amusement Co. of Manchester (N.H.) and Earl Gill Sound Co. of Hot Springs (Ark.).

Sony Ind'I names Johnson

Hal L. Johnson has been appointed national sales manager for the Industrial Products Div. of the Sony Corp. of America.

Squires-Sanders names Salem

Richard E. Salam has been appointed manager of distributor sales by Squires-Sanders, Inc., to handle their communications lines, including Clegg VHF units.

Rep Appointments Concord Electronics

Industrial Products Div.

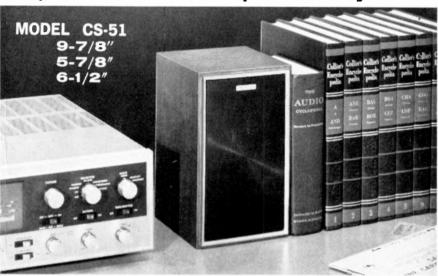
The Art Palmer Co. (Dallas) for Texas, Oklahoma, Arkansas and Lousi-

James B. Lansing Sound

Paul Igou & Assoc. (Atlanta) for Georgia, Alabama, Mississippi, Tennessee, and the Carolinas.

The Stevenson Co. (Salt Lake City) for Colorado, New Mexico and El

miniaturization! 'Magic' in Super-small-size speaker system



 Ultra-compact size enables it to be used where space is extremely limited. Wide range of applications and outstanding true high-fidelity performance is provided despite its small size. Superb electrical characteristics: frequency response ... 50~20,000 cps, sound pressure output level ... 93 db/watt, music power handling capacity . . . 20 watts, excellent dispersion, well-damped tonal quality is second to none.

Enclosure is of oiled walnut finish and the front panel is of acoustically-transparent punched metal screen. Screen is available in bruched gold or satin black finish.



90-WATT FM/MPX STEREO RECEIVER SOLID STATE Model SX-1000T

Automatic stereo switching Highly sensitive protective circuit FM circuitry: cascode front-end using 4 nuvistors Tuning range: 88~108 Mc FM sensitive (IHF): 2 microvolts ◆ Frequency response: ±2 db, from 20 to 20,000 cps (overall) Line requirements: 115/230 volts, 50/60 cycles AC

Music power output: 90 watts (IHF), with 16 ohms loads 🏽 🏵 Dimensions: 17-1/2"(W) x 5-7/8"(H) x 15-1/8"(D).



75-WATT AM/FM/MPX STEREO RECEIVER Model SX-800

(IHF): 2 /rv AM sensitivity (IHF): 10 /rv Music power output: 75 watts Frequency response: ±1 db from 20 to 20,000 cps Harmonic distortion: less than ♦ Power requirements: 115/230 volts, 50/60 cps Dimensions: $17 \cdot 1/2''(W) \times 5 \cdot 1/4''(H) \times 16 \cdot 7/8''(D)$,



15-5, Nishi 4-chome, Omori, Ota-ku, Tokyo, Japan Cable Address: PIONEER TOKYO **New York Office**

350 Fifth Avenue, New York, N.Y. 10001 Telephone: (212) LA4-1757/8

ADVERTISERS INDEX

Benjamin Electronic Sound 77
Bogen Communications Div. 65
British Industries Corp. 34
Concertone Div. 74
Concord tape recorders 85
Concord Industrial Products 73
Crown International 80
Electro-Voice, Inc. 31
Empire Scientific Corp. 67-68
Eric Electronics Corp. 70
Estersohn Associates 79
Finney Co. 80
Fisher Radio Corp 29
Harman-Kardon, Inc. 20-21
Jensen Mfg. Div. 24
Koss/Rek-O-Kut 75
McIntosh Laboratories 69
Metropolitan Sales Co. 78
Oki (Chancellor Electronics) 28
Oxford Transducer Co. 76
Pickering & Co. 27
Pineer Electronic Corp. 84
the Pub 82
RFS Industries, Inc. 78
Revere-Mincom Div. 71
Sarkes Tarzian, Inc. 80
H. H. Scott, Inc. 2-19
Michael Scott Co., Inc. 79
Sherwood Electronic Labs. 25
Shure Brothers, Inc. back cover
Sony/Superscope 49-52
Tandberg of America, Inc. 66
United Audio, Inc. (Dual) 22, 23
University Sound 72
Viking of Minneapolis 33
Whitecrest Industries, Inc. 81

CONCORD IS STILL THE BEST SELLING, MOST COMPLETE LINE OF PUSH-BUTTON TAPE RECORDERS!

AUTOMATIC STEREO TAPE RECORDERS







MODEL R-1000 \$449.95

MODEL R-2000 \$795.00

STFREO TAPE RECORDERS





MONAURAL TAPE RECORDERS







BATTERY-OPERATED, SOLID-STATE PORTABLES





NOW...ASK YOUR CONCORD REPRESENTATIVE ABOUT THESE 5 EXCITING NEW MODELS:



CONCORD MODEL F-20 "SOUND CAMERA" \$29.95



CONCORD MODEL F-88 "SOUND CAMERA" WITH VOICE-CONTROL MICROPHONE \$79.95



CONCORD MODEL 320 DUAL-POWER PORTABLE WITH 5" REELS \$129.95



CONCORD MODEL 444 PUSH-BUTTON STEREO TAPE RECORDER \$199.95



CONCORD MODEL 555 DE-LUXE PUSH-BUTTON STEREO TAPE RECORDER WITH SPLIT SPEAKERS \$249.95

TITLE

CONCORD ELECTRONICS CORPORATION

Have your representative call

Gentlemen:

MY NAME

FIRM NAME

1935 Armacost Avenue, Los Angeles, Calif. 90025

Yes, I want more details on Concord's profit-packed Dealer Franchise Program and information on Concord's brand new Tape Recorders! Please send complete information

For Connoisseurs of Sound

CONCORD@ELECTRONICS CORP.

1935 Armacost Avenue, Los Angeles, California 90025 IN CANADA: Magnasonic Industries, Ltd., Toronto/Montreal

THE SIGNATURE OF QUALITY • Tape Recorders / Industrial Sound Equipment / Dictation Systems / Communications Devices / Closed-Circuit Television

HIGH FIDELITY TRADE NEWS 85

STATE

Perfection results from CHOICE...NOT CHANCE

Since no single phono cartridge can be all things to all people, we earnestly recommend that you employ these individual criteria in selecting your personal cartridge from the broad Shure Stereo Dynetic group:

YOUR EAR: First and foremost, listen. There are subtle differences in tonality that beggar description and are quite unrelated to "bare" specifications—yet add immeasurably to your personal listening pleasure.

YOUR EQUIPMENT: Consider first your tone arm's range of

tracking forces. Too, keep in mind that the cartridge ordinarily represents the smallest monetary investment in the system, yet the ultimate sound delivered depends *first* on the signal reproduced by the cartridge . . . "skimping" here downgrades your *entire* system.

YOUR EXCHEQUER: Shure cartridges cover the entire economic spectrum. And they are ALL Shure in quality, all Shure in performance. Even the least costly has received copious critical acclaim.

RUGGED AND RESPONSIVE



MODEL M44-C

An exceptionally rugged cartridge that tracks at forces up to 5 grams. Ideal for older model, heavier-tracking turntables, or where children or guests have access to your system. Retractile stylus prevents record damage. 15° tracking for minimal IM and Harmonic distortion. Truly musical sound. Only \$17.95

ECONOMICAL TREND-SETTER



M44 SERIES

Premium quality at a modest price. 15° tracking angle conforms to standard adopted by major record companies. Remarkably low IM and Harmonic distortion . . . excellent channel separation, providing superlative stereo effect. Scratchproof retractile stylus. M44-5 with .0005" stylus for ³/4 to 1¹/2 gram tracking. Only \$21.95. M44-7 for 1¹/2 to 3 grams, .0007" stylus. Only \$19.95

ALL THE MOST WANTED FEATURES



15° TRACKING, ELLIPTICAL STYLUS

Professional performance at a modest price. Compares favorably to the incomparable Shure V-15, except that it is produced under standard Shure quality control and manufacturing techniques. Remarkable freedom from IM, Harmonic and tracing distortion. Will definitely and audibly improve the sound of monaural as well as stereo records. A special value at \$35.50. Upgrade M44 cartridge (if

THE "FLOATING" CARTRIDGE



M80E GARD-A-MATIC®
WITH ELLIPTICAL STYLUS

Bounce-proof, scratch-proof performance for Garrard Lab 80 and Model A70 Series automatic turntables. Especially useful for applications where floor vibration is a problem. Spring-mounted in tone arm shell. Unique safety feature retracts stylus and cartridge when force exceeds 1½ grams... prevents scratching record and damaging stylus. \$38.00

THE ULTIMATE!



V-15 WITH BI-RADIAL ELLIPTICAL STYLUS

For the purist who wants the very best, regardless of price. Reduces tracing (pinch effect), IM and Harmonic distortion to unprecedented lows. 15° tracking. Scratch-proof, too. Produced under famed Shure Master Quality Control Program . . . literally hand-made and individually tested. In a class by itself for mono as well as stereo discs. For manual or automatic turntables tracking at ³/4 to 1¹/2 grams. \$62.50

"THE BEST PICK-UP ARM IN THE WORLD"

you can track at 11/2 grams or less) with N55E stylus, \$20.00



SHURE SME

Provides features and quality unattainable in ANY other tone arm. Made by British craftsmen to singularly close tolerances and standards. Utterly accurate adjustments for every critical factor relating to perfect tracking . . . it realizes the full potential of the cartridge and record. Model 3012 for 16" records \$110.50; Model 3009 for 12" records \$100.50

SHURE Stereo Dynetico

High Fidelity Phono Cartridges . . . World Standard Wherever Sound Quality is Paramount Shure Brothers, Inc., 222 Hartrey Ave., Evanston, Illinois