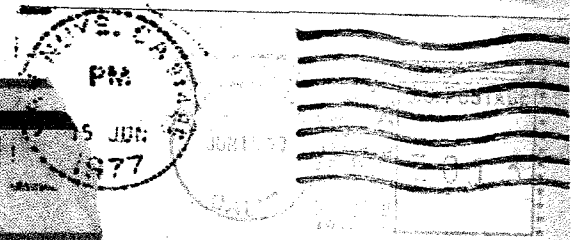


GASCO

THE GREAT AMERICAN SOUND CO., INC.
20940 LASSEN ST. • CHATSWORTH, CALIF. 91311 U.S.A. • (213) 998-8100



KOSS Corp.
4129 N. PT. WASHINGTON AVE.
MILWAUKEE, WI 53212

ATTN: [REDACTED]

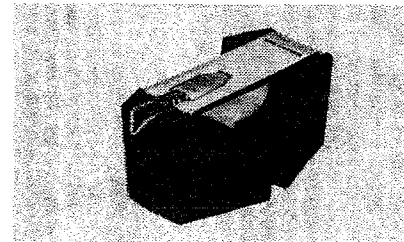
Why are moving-coil cartridges superior?

Great American Sound Company has long recognized the superiority of the moving-coil cartridge concept for optimum reproduction of sound from phono discs. The GAS Co. Thaedra preamplifier with the world's first integral "head amp" was the first step in obtaining optimum results from moving-coil cartridges which were previously burdened with hum and frequency-response limitations introduced by step-up transformers or distortion and noise of inferior pre-preamps.

Moving-coil cartridges have several inherent advantages over magnetic types. (1) The lower moving mass of the mini-pickup coil extends the major resonance to beyond 50 KHz. (2) The extremely low DC resistance establishes a commensurate low "Q" which inhibits an appreciable output resonance rise and its associated output droop near 10 KHz. (3) The 6-Ohm impedance of the coil makes it insensitive to electrical loading such as interconnecting cable capacitance. (4) Since the magnetic field is fixed, FM tracing distortion cannot generate intermodulation distortion (heard as smearing) of the recorded signal.

The moving-coil cartridge's lone disadvantage is its low-output signal. With the availability of Thaedra, and Thoebe plus Goliath, this single limitation has been overcome.

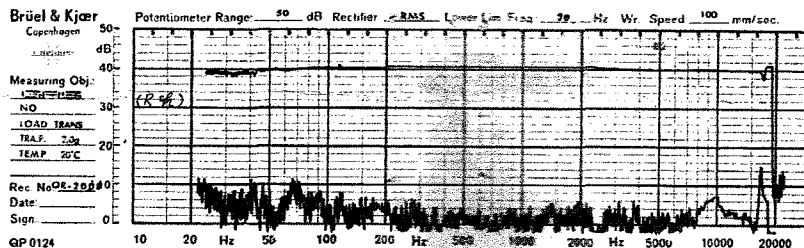
**SLEEPING BEAUTY
MOVING-COIL
STEREO CARTRIDGE**



Why is Sleeping Beauty a Superior moving-coil cartridge?

Sleeping Beauty incorporates many new concepts and techniques. They include: (1) Samarium-cobalt magnetic structure for a lighter-weight, higher-output cartridge; (2) The smaller size of the more-efficient samarium-cobalt magnet also results in a smaller coil mass with consequent higher resonance; (3) Its beryllium-copper cantilever provides greater rigidity and lower mass to reduce distortion and improve separation at high frequencies; (4) The extremely low-weight structure (5½ grams) results in lower arm/cartridge-mass that minimizes groove jumping and improves tracking where record flaws or warps are present; (5) A micro-diamond stylus with 0.3 x 0.6 mil tip offers optimum tracking of the groove wall.

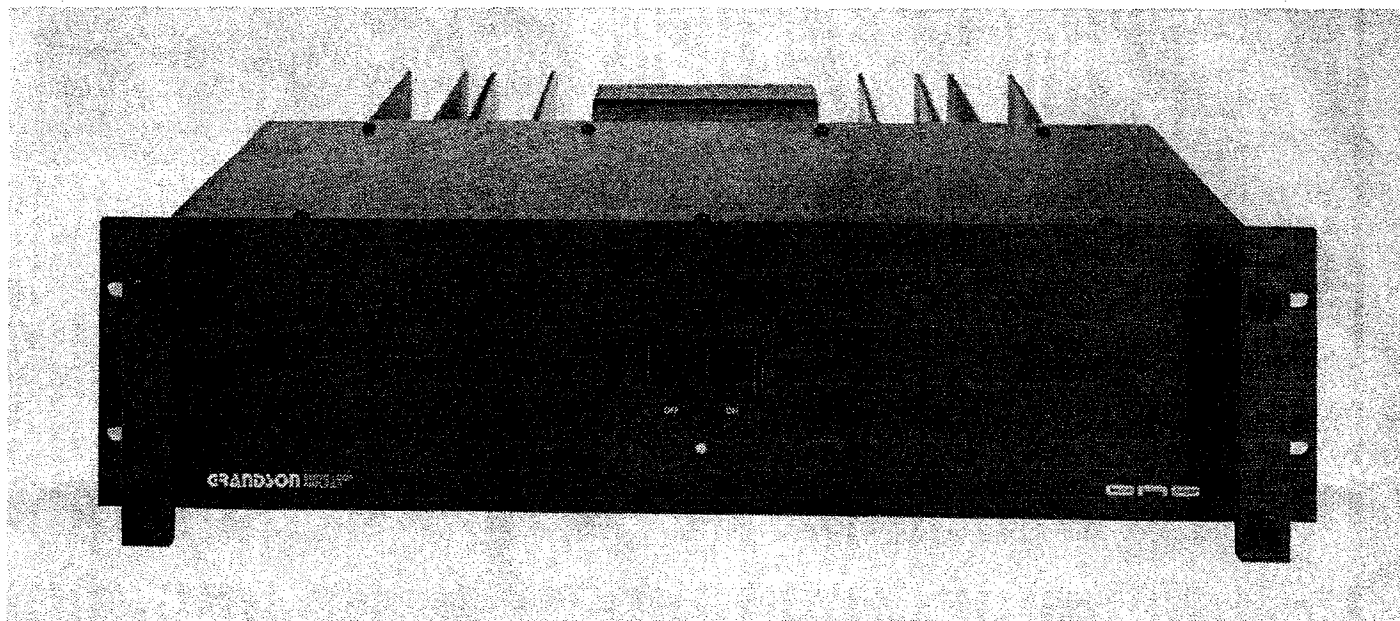
Sleeping Beauty has already elicited raves from audiophiles and critics who have heard the fascinating realism and depth obtainable with this new transducer. Visit your GAS dealer to enjoy an outstanding listening experience.



SPECIFICATIONS:

| Series | SPHERICAL | ELLIPTICAL | SUPER ELLIPTICAL |
|----------------------------------|-----------------------|-----------------------|-----------------------|
| Frequency Response (Hz) | 10-30,000 | 10-35,000 | 5-40,000 |
| Output Voltage (mV) (5 cm/sec) | 0.3 | 0.3 | 0.3 |
| Separation at 1 KHz (dB) | 25 | 27 | 34 |
| Channel Balance at 1 KHz (dB) | 1 | 1 | 1 |
| Compliance at 100 Hz (cm/dyne) | 13 x 10 ⁻⁶ | 13 x 10 ⁻⁶ | 15 x 10 ⁻⁶ |
| Impedance (Ohms) | 6 | 6 | 6 |
| Load Impedance (Ohms) | 20-1000 | 20-1000 | 20-1000 |
| Tracking Force (recommended) (g) | 1.3-2.8 | 1.3-2.8 | 1.3-2.8 |
| Stylus Tip Dim. (mil) | 0.6 | 0.3 x 0.6 | 0.3 x 0.6 |
| Weight (gram) | 5.5 | 5.5 | 5.5 |

INTRODUCING GRANDSON



First AMPZILLA, then SON of AMP-ZILLA, and now the GRANDSON. GRANDSON is the most powerful 40-Watt (at 8 Ohms) amplifier in the industry. With 120-Watt capability at 2 Ohms and 80-Watts at 4 Ohms, GRANDSON offers adequate power reserve for varied speaker requirements including parallel speaker operation.

With the state-of-the-art sound characteristics of much larger amplifiers, GRANDSON is the perfect solution to apartment audio system installations, tweeter-drive amplifier in biamp applications, and for use with high-efficiency

theater-type speakers.

Following in the footsteps of its illustrious parantage, GRANDSON features fully-complementary circuitry operating in Class A up to 1 Watt and a DC-servo control to maintain less than 10 mV DC offset at the output.

Other circuitry similar to that featured in all GAS Co. amplifiers includes:

1. A bias-regulator integrated circuit which eliminates any crossover notch regardless of power or thermal level.
2. Phase-frequency characteristics tailored to ensure 100% stability with all-

type loads including electro-static speakers (capacitive) and multi-speaker crossovers (inductive) or combinations of these.

3. DC-coupled circuitry throughout except for a single input DC-blocking capacitor which extends the power bandwidth to below 0.1 Hz.

4. Optional accessories (at extra cost) include stereo power-reading meters and rack-handle kits.

Engineering excellence, quality of construction, and the use of premium components places GRANDSON in a league of its own.

POWER OUTPUT

| | |
|--------|--|
| 2 OHMS | Minimum 120 Watts per channel, both channels driven, 20 Hz to 20 KHz |
| 4 OHMS | Minimum 80 Watts per channel, both channels driven, 20 Hz to 20 KHz |
| 8 OHMS | Minimum 40 Watts per channel, both channels driven, 20 Hz to 20 KHz |

TOTAL HARMONIC DISTORTION & I.M. DISTORTION

| | |
|--------|--|
| 4 OHMS | Less than 0.3% at any frequency or combination of frequencies, and at any power level to clipping. |
| 8 OHMS | Less than .08% at any frequency or combination of frequencies at any power level to clipping. |

INPUT SENSITIVITY: 0.7 Volts RMS for 40 Watts into 8 Ohms.

INPUT IMPEDANCE: 75K Ohms

RISE TIME AT 8 OHMS: Better than 2 useconds. AT FULL POWER AT 20 KHz. Slew rate equal to 17 Volts per usecond.

FREQUENCY RESPONSE: (Power Bandwidth) at rated power or any level less than rated power:

| | |
|--------|--|
| 4 OHMS | Better than ± 0.2 dB, 1 Hz to 30 KHz |
| 8 OHMS | Better than ± 2 dB, 0.1 Hz to 90 KHz |
| | Better than ± 0.1 dB, 1 Hz to 30 KHz |
| | Better than ± 1 dB, 0.1 Hz to 90 KHz |

STABILITY:

100% stable into any load angle 0° to 90° capacitive or inductive, regardless of waveshape — sine, square, or triangular. No oscillations or modulation noise evident.

OVERLOAD PROTECTION & FUSING:

Thermal breaker protects against overheating. 4 B+, B- power supply fuses, 1 AC slow-blow power fuse.

NOISE:

Better than 95 dB below full power (unweighted, wide band).

SIZE:

19" (W) x 4½" (H) x 11" (D).

SHIPPING WEIGHT:

20 lbs.

PRICES:

| | |
|------------------|----------|
| Utility | |
| Denver/West: | \$299.00 |
| East of Denver: | \$309.00 |
| Rack Handle Kit: | \$ 20.00 |

w/Meters

| |
|----------|
| \$329.00 |
| \$339.00 |
| \$ 20.00 |

INTRODUCING THALIA



GREAT AMERICAN SOUND COMPANY announces the newest addition to our family of preamplifiers, THALIA.

Featuring fully-complimentary circuitry and DC-servo control, THALIA incorporates many of the circuit design concepts present in THAEDRA and THOEBE. These advanced design concepts deliver the sonic performance that has earned the respect and acclaim of audiophiles and critics worldwide.

Modestly-priced, striking low-profile construction, and basic in design, THALIA offers audiophiles a preamplifier of simplicity and exceptional performance.

Intended as a companion to GRANDSON, THALIA will also meet the needs of those who require a high-quality, basic control center with magnetic-phono and two high-level inputs. Provisions

for the use of a tape deck and high-impedance head phones have also been included. Tone controls are 21-position switch type of discrete-film resistor construction. This provides for repeatability not possible with conventional slider-type potentiometers. The level control is also discrete-film resistor construction with ± 1 dB balance between channels. A 10-Hz low-filter, mute-control, and stereo-mode push-button switches offer complete flexibility often ignored by competitively-priced products.

Conceived and constructed in the GREAT AMERICAN SOUND COMPANY tradition, THALIA will prove to be the leader in it's class.

Audition THALIA at your GAS dealer soon.

MAGNETIC PHONO:

| | |
|---|--|
| GAIN: | 36dB to tape output. 56 dB to main output. |
| NOISE: | 1 μ V — 20 Hz to 20 KHz referred to input. |
| DISTORTION: | Less than .01% at 2 Volts R.M.S. output at tape output at any freq. 20 Hz to 20 KHz. |
| RIAA: | ± 0.4 dB, 20 Hz to 20 KHz. |
| HIGH LEVEL: | |
| GAIN: | 20 dB to main output. |
| NOISE: | 2 μ V, 20 Hz to 20 KHz referred to input. |
| DISTORTION (TONE CONTROLS FLAT): | Less than .015% at 2 Volts R.M.S. output at any freq. 20 Hz to 20 KHz into 600 Ohms. |
| FREQ. RESPONSE: | 5 to 250 KHz ± 1 dB (Tone controls flat). |

MAXIMUM INPUT BEFORE CLIPPING:

Phone: 225 mV. at 1 KHz.
High Level: 1 Volt R.M.S. (level control at max.)

MAXIMUM OUTPUT BEFORE CLIPPING — ALL OUTPUTS:

10 Volts R.M.S. minimum.

TONE CONTROL RANGE:

Treble: +10dB, -12dB at 20 KHz
Bass: +13dB, -14dB at 20 KHz

POWER CONSUMPTION:

115-125 Volts, 50-60 Hz, 25 Watts.

SIZE:

19" (W) x 3 1/2" (H) x 10" (D)

SHIPPING WEIGHT:

12 lbs.

PRICES:

Denver/West: \$299.00
East of Denver: \$309.00
Rack Handle Kit: \$ 20.00

Panel

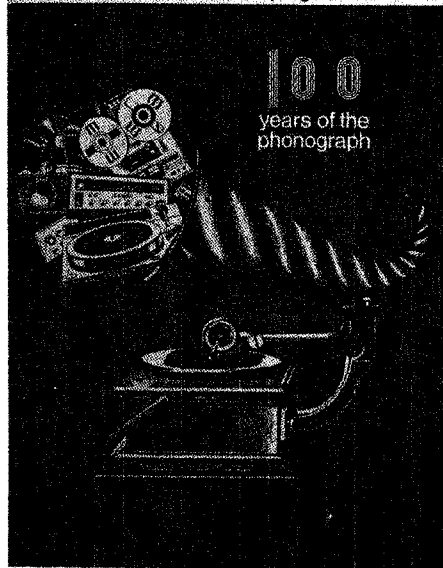
\$299.00
\$309.00
\$ 20.00

Reprint
courtesy of

the absolute sound

volume 3 number 9 - spring 1977

T.M.



THE ABSOLUTE SOUND is an independent publication about sound and music for discriminating audiophiles and musicians. Subscriptions for four issues are available for \$12 (sent via third class mail) or (sent via first class mail) or \$16 (sent via air outside North America) from THE ABSOLUTE SOUND, P.O. Box 5, Northport, N.Y. 11768.

Ampzilla II

Manufacturer: The Great American Sound Company, Inc., 20940 Lassen, Chatsworth, Calif. **Source:** Manufacturer's loan. **Serial No.** A-102120-B. **Price:** \$909.

James Bongiorno, purveyor of oddly named audiobeastes, herewith introduces a newly designed version of his independent entry into the field. No restraints held back, my friends: This is a wonderful amplifier, likely to become classic of its time.

Had Ampzilla II been the product of another firm (particularly one blessed with a large advertising and commercial design budget), its appearance might have been attended by loud media ho-

stannas and sexy commercial photographs. But as it now stands, I have seen no advertisements—not even teeny ones—of its nativity. Even the product itself is hard to distinguish physically from the original Ampzilla: The only real external distinction, and a subtle one at that, is the addition of a pair of LEDs located just medial to the pair of large (and still very slow-acting) meters mounted upon what appears to be the amplifier's proboscis. These LEDs are supposed to light up whenever the amp goes into clipping, however instantaneously. At first I doubted this, thinking that they lit up only when Ampzilla II was grossly overdriven. But as I have gotten to know them, I found them immensely more helpful (confirming my own listen-

ing experience) than those gracefully undulating but otherwise useless meters. Other relatively obvious physical distinctions between the two generations of Ampzilla include a new extruded (vs. fabricated) heat-sink assembly, as well as II's greater weight (due apparently to a heavier power supply and associated hardware; the beefed-up power supply presumably explains another of Ampzilla II's properties: The meter lamps, unlike those in the elder model, don't dim appreciably when a loud surge happens by).

But the Ampzilla II comes to us with surprisingly modest pretensions. It costs \$100 more than its predecessor and has the same rated power output. Then why do I find Ampzilla II such a supergadget? The name of the game, my friends, is definition.

In the past couple of issues of The Absolute Sound, the listing entitled "Editor's Choice" has been prefaced by comments which established as prime requisites for editorial beatification a lack of distortion and coloration, particularly in the midrange. To my ears, Ampzilla II comes about as close to this ideal as any amplifier yet heard. But the way it does it is fascinating: Instead of being merely sterile (as implied by "lack" of distortion and coloration), it is almost surgically romantic. Imagine a musical signal so clean that you can hear every inner voice uttered with complete lucidity, even to the point of being a bit bare-bones. Imagine this quality being present to an almost razor-sharp degree which verges on dryness. But now forget about the bare-bones razor-sharp quality, and replace it with an upper-midrange just slightly bright, just slightly tinged with a certain silvery-sweet quality, like a peppermint drop after a big supper. Or let me restate it: Ampzilla II greatly eschews the kind of hash which so often passes for midrange sound in contemporary amps. At the same time it humanizes the sound by means of a slightly lush high end, a quality which obviously must be counted as a coloration, but a merrily euphonic one. It's nice to hear, but it probably would be enough to place Ampzilla II just a notch below state-of-the-art ranking.

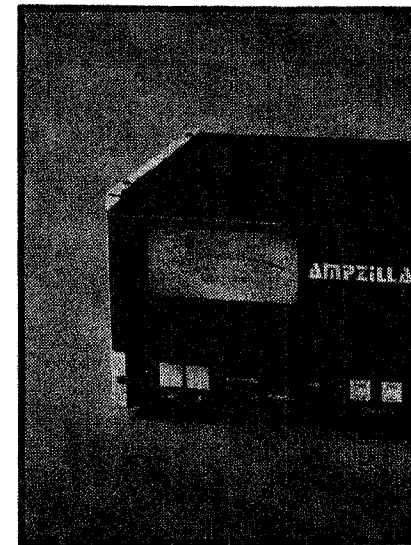
That not entirely vexing point aside, I really can find very little to complain about with this amp's sound. I truly believe it to be the most detailed I have ever heard with my Dayton-Wright MK I's (though even its 200-watts-per-channel

is not powerful enough to drive a pair of MK IIs of my acquaintance to a satisfying level). Its low end is unexceptionable. As a matter of fact, this amp proved the most satisfactory of several currently on hand in driving full-range a pair of Infinity QLS-1s, which in their present incarnation virtually demand bi-amping if the bass is to sound like anything more than mud.

Elsewhere in this issue I describe at length my experience with the new Audio Research Dual 100 amplifier, which arrived at these precincts around the same time as Ampzilla II. This synchronicity of events proved to be most fortuitous, for in two important sonic respects these units are practically the antithesis of one another. One of these respects, as you might by now have guessed, is Ampzilla II's clear superiority in matters of details and definition. The other respect I have found to be the source of some interesting recent dialogues between myself and other of our staffers. That is the matter of "dynamics range."

Since my colleagues' comments on my D-100 review take lively exception to my praise of that amplifier for its wide dynamic range, it might be worthwhile to mention that Ampzilla II was my most constant point of reference (and contrast) while writing the D-100 review. In other words, if the D-100 has a very wide dynamic range, then Ampzilla II's is very ordinary. Now let me be a bit more clear on what I mean by dynamic range as it applies to an amplifier. If I play a given recording (preferably classical) through each of these amps successively, leaving the gain setting the same throughout each playing (though not necessarily equal for the two amps), then I at least hear a much wider scale of contrast in dynamic levels, from very soft to very loud, from the D-100 than from Ampzilla II. Note that I am not talking about the two amps' maximum or minimum outputs relative to another, but rather the shadings of volume achieved by each within its available power reserve; its dynamic range, in other words.

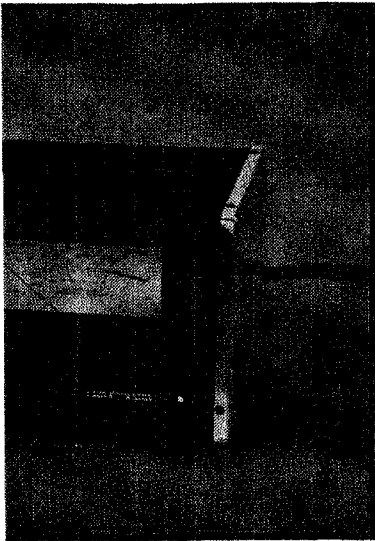
In older and simpler times, it might have been possible to dismiss this apparent quality of the D-100 as being due not so much to actual power output as to a kind of fatiguing effect caused by distortion, so that, rather than actually hearing more volume, the listener simply had to work harder to keep from being annoyed by it. But this is by no means the case here. Though the D-100's opac-



ity in the lower midrange may in itself be annoying, annoyance does not grow as the volume increases. This quality is no doubt much enhanced by the fact that the D-100 clips in an astonishingly graceful fashion—almost as if there were no clipping at all! So one concludes that the Messrs. Audio Research have invented a sort of new wonder—even though some of my colleagues may not agree on this point.

Now don't let me give you the impression that Ampzilla II is actually somehow deficient in this matter of "dynamic range," for it is at least the equal therein of other amps of similar power rating, being surpassed in my experience only by the D-100 and (to a lesser degree) by the Stax DA-300. Just how these two lower-power amps do it is beyond my ken. Had not the D-100 come along, I would have continued to suppose that the DA-300's Class A operation was the secret. Now I just don't know.

As for Ampzilla II's own clipping characteristics, this amplifier remains the antithesis of the D-100. While it is capable of putting out plenty of power, it will tell you for sure—both audibly and visually—when it is running out of steam. I mentioned before that I at first mistrusted those newly added LEDs: The tricky part is that when the amp is just beginning to exhibit distress, the diodes



tings be precisely matched, as the ear has no memory beyond a few seconds under a *direct comparison situation*. Using *one* D-100 with its soft limiting characteristic, it is possible to push it harder before apparent audible distress occurs, although with a loss of definition. Using *two* D-100's in bridged fashion is monetarily unfair (\$2,000) and unfair from a power standpoint, as this operational mode gives around 400 watts per channel into 8 ohms versus 200 watts for Ampzilla.

Although we have to work with specific technical matters in engineering terms and with the best available instrumentation, we are trying as hard as we know how to include trained-ears judgment in our decisions.

We value the (golden ears) types. They are valued aids in design, respected critics, and above all valued customers.

James Bongiorno
President
G.A.S., Inc.

the absolute sound

Editors Choice

The components listed here are the choices of the editor alone.

These listings are not divinely inspired. They should be read as a guide, not as any manifestation of a final authority. The editor has listed only those components he has heard, and he is solely responsible for the ratings. Cost has nothing to do with any of the ratings, but lack of coloration and distortion in the middle frequencies does (since the middle frequencies are most vital to the accurate reproduction of musical material). That is to say, the first place a component must excel is in the mid-range. Keeping this in mind will explain several seeming anomalies in these listings.

There is one more important point: The differences between Class I and Class II equipment are exceedingly small. This is especially true for the electronics and speaker systems listed. In most cases, the drop to Class III represents a considerable increase in noticeable colorations. You should remember that all modern-day components suffer from severe failings, especially

when you use live musical performances as the ultimate reference, that is, as the absolute sound. Even the best listeners cannot always detect colorations, if those colorations are common to most equipment and represent the best that technology can do in the endlessly complex procedure of transforming realities through several media. This is another way of saying that until a component that is noticeably less colored and more accurate comes along, we may not detect all the flaws in our equipment.

All of the components listed here are, at the very least, acceptable for those wishing to re-create some accuracy in the illusion of a musical performance, rather than for those who think home music systems should be, *sui generis*, musical instruments rather than music reproducers. Few are mechanically perfect. Not one component listed here is without sonic flaws.

Equipment that fails to perform properly is given a (c) conditional rating: It is subject to being dropped from future listings because of its unreliability. After all, who wants to spend a fortune on something that either won't work unless you're some sort of Great Expert, or something that varies so much from unit to unit that no two samples sound alike?

Several older components officially discontinued by their manufacturers (but still obtainable by the clever), have been listed here and are marked by a dagger (†). Other components have acquired a high ranking, but only when used with specific auxiliary equipment. These are so designated.

State-of-the-art is the category reserved for those rare components that are significantly beyond the best overall performance of nearly all other equipment (in terms of low coloration, low distortion and, in this instance, wide-band frequency response). **Class I** indicates components of very low distortion, with little in the way of coloration—but components that have one or more shortcomings when measured against what can be achieved by present technology. **Class II** indicates, in our opinion, considerably more coloration in more bands of the audio spectrum, but colorations which are euphonic and which may, when properly matched, add considerable realism to any given system. **Class III** includes components that may have very wide frequency response, or, failing that, rather accurate reproduc-

tion in certain parts of the frequency range, though with two or more major colorations elsewhere in that range. **Class IV** consists of equipment that is, for the money, faithful to the ideals of

musical sound reproduction (and far beyond more expensive and more commercial brand names) with coloration that must be specifically matched to other and complementary components.

STATE-OF-THE-ART

| | |
|------------------------------|---|
| Tuners | Sequerra Model One Yamaha CT-7000 |
| CLASS I | |
| Turntables | Technics SP-10 Kenwood KD-500 |
| Arm | Infinity Black Widow M&K/Rabco SL-8E (†) |
| Cartridges | Sonus Blue Label Grado Signature (c) |
| Pre-amplifiers | Audio Research SP-3a-2 |
| Amplifiers | Audio Research D-150 Double Dyna 400 (Van Alstine) |
| Semi-pro Tape Recorder | ReVox A-700 |
| Tuner | McIntosh MR-78 |
| Speaker System | Acoustat-X |
| CLASS II | |
| Turntables | Sony 2251 LA Sony TTS-3000/3000a (†) |
| Arms | J-H Formula Four Mayware |
| Cartridges | ADC XLM/XLM Mk II (c) |
| Pre-amplifiers | Infinity FET Levinson JC-2 |
| Amplifiers | DB Systems Ampzilla II Audio Research D-76a Stax DA-300 |
| Tuner | Onkyo 4055 |
| Semi-pro Tape Recorder | Tandberg 10XD |
| Speaker System | Infinity Servo-Statik Ia (c) (†) Audio Research Magneplanar IIIa (†) Audio Research Magneplanar I-c (†) |
| CLASS III | |
| Turntable | Technics SL-110/120 |
| Arm | Grace 707 |
| Cartridges | Grado FTE + 1 AKG P8SE Denon 103c Decca Mk V (elliptical) AEC (c) |
| Pre-amplifier | Levinson LNP-2 |
| Amplifiers | Marantz Model 9 (c) (†) Luxman 3045 (c) Dyna Mk VI Epicure Model One Dahlquist DQ-10a (w/DQ-1W sub-woofer) |

licker only very faintly and very briefly. By the time they begin to show a good solid red hue, your ears and the amplifier will both be considerably discomfited. But for, this to happen at all requires either (a) markedly inefficient speakers or (b) a listener who likes his music a lot louder than I.

Hats off to you, Mr. B. Your new creature may be a bit berouged in the high frequencies, but I suspect that it's going to be my reference standard for a while.

—JWC

Manufacturer's Comment:

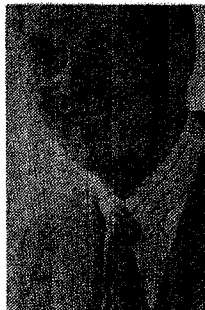
Thank you for your fine review on Ampzilla II. Although there is not much to add, I would like to clarify a few points. . . .

With respect to the discussion of clipping characteristics, it is possible to introduce soft limiting to show the effect you describe. Unfortunately, soft limiting has its penalty, by any means that we have found.

The (apparent) extra dynamic range can be provided for the bass, but takes its toll of midrange and high frequency definition when it is in effect. We have chosen to hold all ranges at maximum definition right to the clipping limit. A comparison of limits is difficult to judge from here since apparently gain levels or playback were not equalized. It is absolutely imperative that the gain set-

High Fidelity Pathfinders The Men Who Made an Industry

by Norman Eisenberg



TO MOST PEOPLE who know something of the history of the audio industry, the name of Ed Miller is associated with Sherwood Electronic Laboratories, Inc., which he helped to found in 1955. But Miller had already made his mark nine years earlier, at the age of twenty-five, at Radio Craftsmen—a manufacturer of truly classic components, though the name is virtually unknown to current audiophiles of less than middle age. It was there that he solved the "drift problem" then plaguing FM tuners by introducing an automatic frequency control into the circuit. The basic idea behind AFC was already in the engineering textbooks, but he was the first to incorporate it into an FM tuner.

Born in Cincinnati, Miller earned a degree in electrical engineering at the University of Cincinnati in 1943. Even as a student, he was a radio hobbyist with a penchant for FM. He held various jobs, including some time with Stewart-Warner, a stint as laboratory engineer with Naval Ordnance, and a period in the research labs of General Electric, before he joined Radio Craftsmen in Chicago in 1945. As he rose to vice president and director of engineering, he was largely responsible for that company's entry into the manufacture of high fidelity tuners and amplifiers, and by the mid-1950s it was among the largest producers of FM tuners.

Miller then joined forces with Emil Plank, John Snow, and John Clark of Elrad, a radio coil manufacturer. They started Sherwood—named after the Chicago suburb of Sherwood Forest where Miller lived.

Miller, as vice president and general manager, proceeded to direct the engineering and production of a long succession of tuners, amplifiers, and receivers that quickly gained a reputation as being among the best available. Providing the best possible value to the music-lover, rather than the best attainable performance in absolute terms, was the philosophy behind this reputation.

In 1970, Miller left Sherwood, partly because of a yearning for a change of scenery: He and his wife, Nan, decided they wanted to live in California.

The two forces coalesced into a de-

cision when Miller was approached by Morris Kessler, president of a small company in Los Angeles known as SAE (Scientific Audio Electronics, though the full name is seldom used), whose ten employees produced a line of amplifiers, preamps, and equalizers. Miller designed its FM equipment and a digital tuner, and soon became head of the SAE engineering department.

He left for a year to become engineering manager of Acoustical Control, reportedly the third largest manufacturer of public-address and music-performing amplifiers in the U.S. But the seeds planted at SAE bore fruit; the company grew, and he was asked to return in 1973. For a time he worked with a young engineer named James Bongiorno, who had replaced Miller during the year-long break from SAE and who designed its present line of amplifiers. They were a formidable team of technical talent.

In late 1974, Bongiorno decided to go out on his own. The first product of his Great American Sound Company (he has neither confirmed nor denied that he chose the name for its acronym GAS) was a kit for building a high-powered amplifier. A year later, he succeeded in persuading his old working partner to join him at GAS. There was a brief period when Miller worked for both companies at the same time, which probably is something of an innovation in a highly competitive industry and also perhaps indicative of a new spirit of technical fraternity abroad in the audio field in recent years.

GAS has since ceased to make kits and is now making fully assembled preamps and power amps, of which the Ampzilla (definitely intentional humor) is probably the best known. Miller reports that the company, of which he now is part owner, "is growing like wildfire" and may produce a tuner in the foreseeable future.

Tall, lean, and athletic at fifty-five, Miller retains all the enthusiasm for high fidelity sound that drove him in his salad days. His sole hobby is botany, and the results of his work in this area enhance his reputation as a man with an exceptional ability to make things grow.

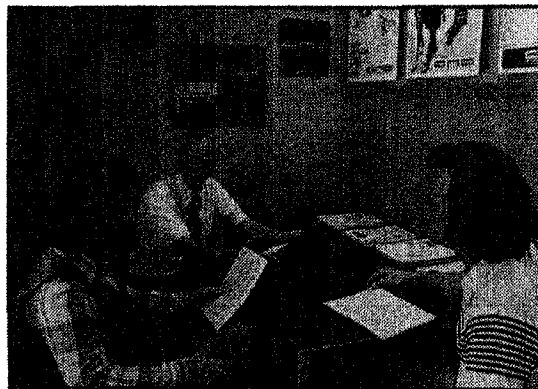
Great American Sound Company has experienced remarkable growth in its short life. Companies do not grow without dedicated and talented people. We at GAS Co. believe we have a group of such employees who are dedicated to build and serve you with the best possible audio products.

You already know about Jim Bongiorno, GAS Co. founder and creator of Ampzilla and Thaedra. Now, we take this opportunity to introduce you to some of the other GAS Co. gang who have made our company what it is today!

EDWARD MILLER (VP/General Manager) — One of the GAS Company's Founder-Directors, Ed has for two years been the man behind the scenes organizing GAS Co.'s production, purchasing, material control, and more recently has fulfilled the duties of General Manager. Ed's many years of background with several leading high-fidelity manufacturers has provided the experience necessary to put it all together. (See the reprint from *High Fidelity* at the left.)

DAVID RIDDLE (Chief Production Engineer) — Dave has been with Great American Sound Co. since its inception. He is our resident mechanical wizard whose expertise and ingenuity has enabled him to create the most-efficient and effective design solutions in GAS Co. product construction. Our impressive production test facilities and module life-test stations are examples of Dave's creativity and insight into human engineering.

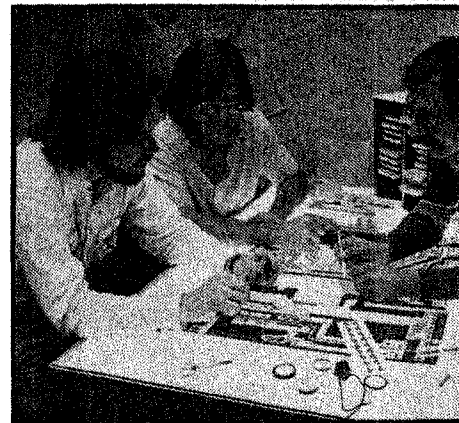
ANDREW HEFLEY (VP/Engineering) — With remarkable electronic understanding and insight in his youth, Andy was Jim Bongiorno's engineering protege at SAE. One of the GAS Co.'s Founder-Directors, Andy has detailed the circuitry for the Son of Ampzilla and Thoebe, and more recently Grandson and Thalia. Andy's never-ending search for electronic circuitry that provides



Vince, Bob, Jim H.



John, Dan



Dave, Andy, Adam

better sound motivates our engineering program to product achievements.

ADAM ZAREBA (VP/Sales and Graphics) — GAS Co. Director with a degree in Mechanical Engineering, Art sense of esthetics developed in graphic arts and ac his continental heritage. His 5-year previous assoc SAE brought to the GAS Co. extensive expertise in mechanical packaging, manufacturing processes, and all aspects of graphics. Adam's most recent responsibilities include sales and advertising.

VINCE DELLAMONICA (Export and Eastern Regional Manager) — Vince is our genial expert on product availability one of our earliest employees. He is always helpful and serve our dealers or customers no matter what the problem how difficult the challenge. Just ask for Vince — He one's friend-at-the-factory.

BOB HEFLEY (Secretary/Treasurer), a GAS Co. Founder, is our financial wizard with many years' background in electronic manufacturing, including Burroughs and Univerputing Co. where he was a divisional General Manager been our financial guide through our most difficult years. His experience and contacts in the financial environment have proved invaluable.

JIM HARTEL (Former Service Manager and now Western Regional Sales Manager) — Jim was one of the early creators of the Ampzilla kit instruction manual. Even though recently become Western Regional Sales Manager, Jim is available and ready to arrange a solution for whatever application problem you might encounter.

JOHN EVANGELINOS (Jr. Electronic Design Engineer) — John earned his degree in Electronic Engineering at Calicut University, can be found hard at work completing the design of our new Charlie the Digital Tuner. In the near future, you to see some of John's intriguing digital solutions problems as they appear on new GAS Co. products.

DAN SIEFERT (Electronic Design Engineer), formerly involved in refining the electronic details of existing products while still directing and guiding the test department. He headed up the engineering team that recently developed new Grandson.

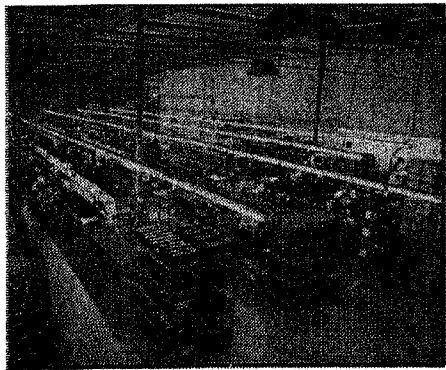
ED SERRA (Material Control Manager) who recently joined GAS Co. He previously was the manufacturing manager of Compunetic Devices, Inc. Ed has already made significant improvements in our material-procurement operation.

CARL JESSEL (Production Manager) who brings a wealth of experience from his past association with Burroughs University Computing Co., and Hughes Aircraft headed up production.

Space limitations here preclude additional introduction of many supervisory persons who are required to keep products flowing flawlessly to our customers.



at the GAS Co., Chatsworth, California, facilities has are feet to provide us a total of 26,000 square feet of office space. It's a long way from the 5,000 feet we were 2 years ago.



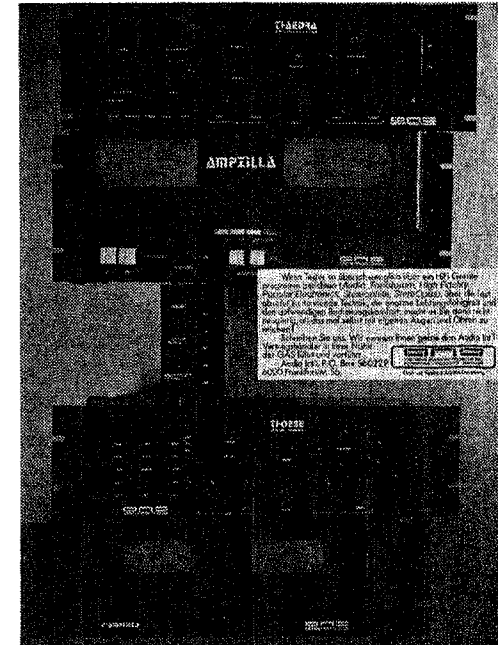
More than 100 GAS Co. employees diligently at work to keep and for GAS Co. products.



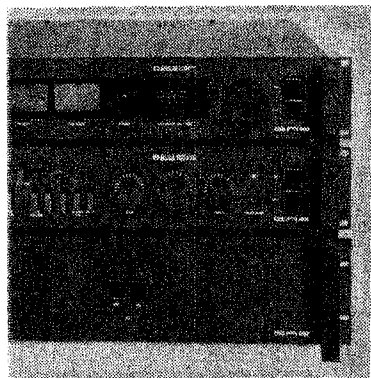
Front cover courtesy of Stereo Sound, Japan, in full color.



Advertisement in Studio Sound, Gr. Britain, 1977.

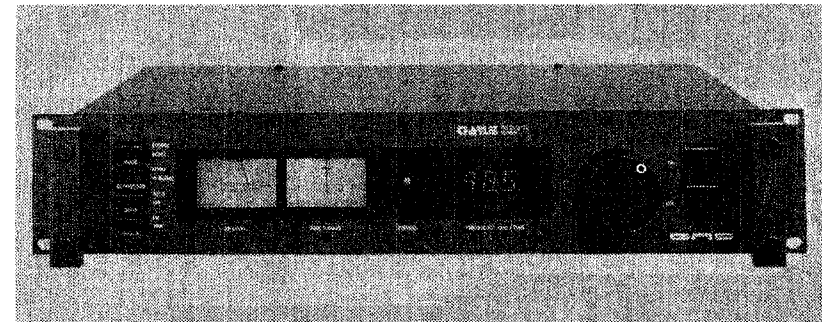


Full color ad in HI FI Stereophonic W. Germany, 1977.



PREVIEW OF COMING PRODUCTS "Charlie the Digital Tuner"

- +.004% Crystal-controlled digital FM readout.
- 5 tuned-circuit varacter, fly-wheel-assisted tuning.
- Front-panel switch for FM tuning/time.
- All complementary audio circuitry.
- Phase-locked-loop stereo multiplex.



Alia and Grandson

RED
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 K.T.

DEALER LIST

G.A.S. PRODUCTS ARE AVAILABLE WORLD-WIDE.

WHERE TO BUY G.A.S. COMPANY PRODUCTS:

NORTH EAST

NEW LONDON, CONN. 06320: Stereo Lab
 158 Captain's Walk..... (203) 447-9802
 OLD GREENWICH, CONN. 06870: Audiocom, Inc.
 177 Sound Beach Ave..... (203) 637-3621
 WASHINGTON, D.C. 20036: Myer Emco
 1212 Connecticut Ave., NW..... (202) 293-9100
 BALTIMORE, MD. 21210: Soundscape
 406 W. Cold Spring Ln..... (301) 889-1134
 BEL AIR, MD. 21014: Sight & Sound
 Campus Hills Shopping Ctr..... (301) 879-0488
 ROCKVILLE, MD. 20852: Myer Emco
 11611 Old Georgetown Rd..... (301) 468-2000
 FRAMINGHAM, MASS. 01701: Natural Sound
 401 Worcester Rd..... (617) 879-3556
 NORHAMPTON, MASS. 01060: Tripod Audio
 219 Main St..... (413) 584-6498
 NEW BRUNSWICK, N.J. 08901: Hi Fi Haven
 28 Easton Rd..... (201) 249-5130
 RIDGEWOOD, N.J. 07450: University Stereo
 57 E. Ridgewood Ave..... (201) 447-5700
 BUFFALO, N.Y. 14217: The Stereo Emporium
 3407 Delaware Ave..... (716) 874-3372
 MANHASSET, N.Y. 11030: Audio Breakthrough
 1681 Northern Blvd..... (516) 627-7333
 NEW YORK, N.Y. 10028: Lyric Hi Fi
 1221 Lexington Ave. & 83rd St..... (212) 535-5710
 ROCHESTER, N.Y. 14608: Paul Heath Stereo
 354 State St..... (716) 232-2828
 SCARSDALE, N.Y. 10583: The Listening Room
 590 Central Ave..... (914) 472-4558
 EMMAUS, PA. 18049: Sound Advice
 536 State Rd..... (215) 967-4418
 FALLS CHURCH, VA. 22044: Myer Emco
 2930 Patrick Henry Dr..... (703) 536-2900
 MORGANTOWN, W.VA. 26505: Sound Investments
 465 High St..... (304) 292-3292
 PRINCETON, W.VA. 24740: Soundpost Electronics, Inc.
 852 Mercer St..... (304) 487-1023

SOUTH EAST

CORAL GABLES, FLA. 33134: Sound Components
 2710 Ponce De Leon Blvd..... (305) 446-1659
 GAINESVILLE, FLA. 32605: Audio Etc.
 1999 N.W. 43rd St..... (904) 377-4107
 JACKSONVILLE, FLA. 32211: House of Stereo
 8169 Arlington Expressway Mall..... (904) 724-4988
 ATLANTA, GA. 30305: Hi Fi Buys
 3135 Peachtree Rd. N.E..... (404) 261-4434
 CHAPEL HILLS, N.C. 27514: Vickers Audio
 210 W Franklin St..... (919) 929-4554
 KINGSPORT, TENN. 37660: Watkins Stereo
 1009 E. Center St..... (615) 245-1297

NORTH CENTRAL

CHICAGO, ILL. 60614: Paul Heath Audio
 2036 N. Clark St..... (312) 549-8100
 CHICAGO, ILL. 60611: Victor's Stereo
 8 East Erie St..... (312) 642-6349
 MORTON GROVE, ILL. 60053: Victor's Stereo
 5701 W. Dempster St..... (312) 986-3590
 CEDAR RAPIDS, IOWA. 52401: Stergo Shop
 107 Third Ave. S.E..... (319) 365-1324
 DES MOINES, IOWA. 50322: Ecologic Ear
 7678 Hickman..... (515) 278-5879
 TOPEKA, KANSAS 66609: Sounds Great Stereo
 911 West 37th St..... (913) 267-1933
 ANN ARBOR, MICH. 48104: Absolute Sound
 312 S. State St..... (313) 662-2026
 ROYAL OAK, MICH. 48072: Absolute Sound
 4354 N. Woodward Ave..... (313) 549-7550
 DETROIT, MICH. 48224: Absolute Sound
 12400 Morang Ave..... (313) 527-2244
 SAGINAW, MICH. 48603: Creative Audio
 4572 Wintergreen Dr. N..... (517) 799-6013
 APPLE VALLEY, MINN. 55411: Audio Perfection
 822 Regent Drive..... (612) 432-3222
 ST. ANN, MO. 63704: Continental Sound
 9847 St. Charles Rock Rd..... (314) 429-5460
 LINCOLN, NEB. 68508: Natural Sound
 315 S. 11th St..... (402) 475-3325
 OMAHA, NEB. 68127: Custom Electronics, Inc.
 4429 S. 84th St..... (402) 339-0308
 BOWLING GREEN, OHIO 43402: Sound Associates
 248 S. Main St..... (419) 352-3595
 BROOKPARK, OHIO 44142: Hoffman's House Of Stereo
 5931 Smith Rd..... (216) 243-9997
 COLUMBUS, OHIO 43227: Custom Stereo Elect. Inc.
 1391 S. Hamilton Rd..... (614) 235-7575
 COLUMBUS, OHIO 43201: Stereo Lab
 2244 Neil Ave..... (614) 294-4743
 NATRONAHEIGHT, PA. 15065: The Sound Shack
 911 Dallas Ave..... (412) 224-7000
 MIDDLETON, WISC. 53662: Audiophile's Sound Studio
 7459 Elmwood Ave..... (608) 836-3807
 MILWAUKEE, WISC. 53208: Wack Electronics
 5722 W. North Ave..... (414) 442-3441
 AKRON, OHIO 44313: Audio Systems
 2858 W. Market St..... (216) 864-4411

SOUTH CENTRAL

LITTLE ROCK, ARK: Project #1
 5410 W. 12th St..... (501) 861-1440
 LEXINGTON, KY. 40505: Custom Electronics
 1140 Floyd Dr..... (606) 233-3535
 LAFAYETTE, LA. 70501: Brute Force
 4416 Johnston St..... (318) 984-5492
 METAIRIE, LA. 70002: Audio Climax
 3000 Severn Ave..... (504) 455-4434
 OKLAHOMA CITY, OK. 73120: Maguire High Fidelity Inc.
 9329 N. Penn Pl..... (405) 840-1531
 KNOXVILLE, TENN. 37916: England Sound Co.,
 2000 W. Cumberland Ave..... (615) 523-8101
 MEMPHIS, TENN. 38122: Opus 2
 4284 Summer..... (901) 683-0117
 AUSTIN, TEXAS 78757: Audio Concepts
 7530 Burnet Rd..... (512) 459-3321
 HOUSTON, TEXAS 77006: Audio Concepts
 2200 S.W. Freeway..... (713) 527-0774

NORTH WEST

ALBANY, CA. 94706: Pud's Stereo
 1394 Solano Ave..... (415) 658-7837
 BERKELEY, CA. 94705: Garland Audio
 3101 Telegraph Ave..... (415) 841-1591
 HAYWARD, CA. 94541: Pud's Stereo
 24058 Grand Ave.....
 SAN JOSE, CA. 95128: Garland Audio
 2950 Stevens Creek Blvd..... (408) 244-6724
 DENVER, COLO. 80222: DTR Sound Corp.
 2186C South Colorado Blvd..... (303) 759-3181
 GREAT FALLS, MONT.: Rocky Mountain Hi Fi
 812 Central Ave..... (406) 761-8683
 PORTLAND, ORE. 97225: Hawthorne Stereo
 8680 S.W. Canyon Rd..... (503) 292-4401
 SALT LAKE CITY, UTAH: Winterton's Audio Ctr.
 84106 Highland Dr..... (801) 486-7382
 SEATTLE, WASH. 98105: Definitive Audio
 3414 N.E. 55th St..... (206) 524-8633

SOUTH WEST

BEVERLY HILLS, CAL. 90211: Jonas Miller Sound
 8719 Wilshire Blvd..... (213) 659-1707
 LOS ANGELES, CAL. 90045: The Ear Drum
 5146 W. Imperial Hwy..... (213) 641-1932
 SAN DIEGO, CAL. 92123: Audio Directions
 8898 Clairmont Mesa Blvd..... (714) 278-3310
 SANTA ANA, CAL. 92706: Absolute Audio
 305 E. 17th St..... (714) 547-4497
 SANTA BARBARA, CAL. 93110: Audio Vision
 3951 State St..... (805) 967-4541
 LAS VEGAS, NEV. 89102: Interior Systems
 4443 W. Charleston Blvd..... (702) 870-1106
 ALBUQUERQUE, N.M. 87112: Sound Ideas
 1624 Eubank Ave. N.E..... (505) 292-1188

CANADA

SUDBURY, ONT. P3E1A5: G&G Electronics, Inc.
 50 Cedar St..... (705) 692-5545
 TORONTO, ONT.: Radio People and Co.
 84,100 Elizabeth St..... (416) 366-8984
 OTTAWA, ONT. CANADA. K1S3T8: Sound Studio
 697 Bank St..... (613) 236-1097

WORLDWIDE

CONTINENTAL EUROPE, c/o Audio Int'l.
 Gonzenheimer St. 2b, 6 Frankfurt 56, Germany.
 NORWAY, Solheim Valido a.s.
 Schleppegrellsgt 32, Oslo 5.
 SWEDEN, Ingenjorsfjirma Sven Eriksson
 Johanneshov S-12108
 SOUTH AFRICA, Hi-Fi Installation Pty. Ltd.
 274 Andries St., Pretoria 0001.
 AUSTRALIA, Sound Genesis
 30 Carrington St., Sydney 2000 New South Wales.
 PHILIPPINES, Fernando Sim
 387 Escolta St., Manila
 JAPAN, B.L.C. Corp.
 2-16-15 Hiraikawa A-Cho Chiyoda-ku, Tokyo
 TAIWAN, Sunshiny Trading Corp.
 77-4 Sec. 2 Chug-Shan N. Rd., Taipei
 HONG KONG, Excel Hi-Fi Co.
 Central Bldg., Peddar St.
 THAILAND, Asia Audio,
 289-291 Chareonkrung Rd., Bangkok
 LATIN AMERICA, c/o Albert Schultz, Inc.