Ambrosia 2000 SE

Precision Stereo Pre Amplifier

2011 the absolute sound PRODUCT OF THE YEAR AWARDS

James Bongiorno 第 5 作 “Aural Magic Processor"

James Bongiorno による伝説のアンプジラシリーズのプリアンプ Thaedra（テドラ）の 21 世紀バージョン Ambrosia2000 がリニューアルして登場です。インプット - アウトプットフルバランス設計の全く新しく進化したサーキットデザイン、フルファンクションのメニューによるフルリモートコントロールアンプです。アナログレコードのオーディオパフォーマンスを新たにする MC/MM カートリッジそれぞれにフル対応の高精度フォノイコライザー搭載バージョンとラインアンプバージョンの 2 種が用意されています。4 ポジション、ターンオーバー周波数可変のトーンコントロール、MC/MM/Line それぞれの独立した電源供給回路とトランス巻線など斬新な特長が織り込まれています。Ambrosia2000SE は既に発売の Ampzilla2000SE のベストパートナーとなります。

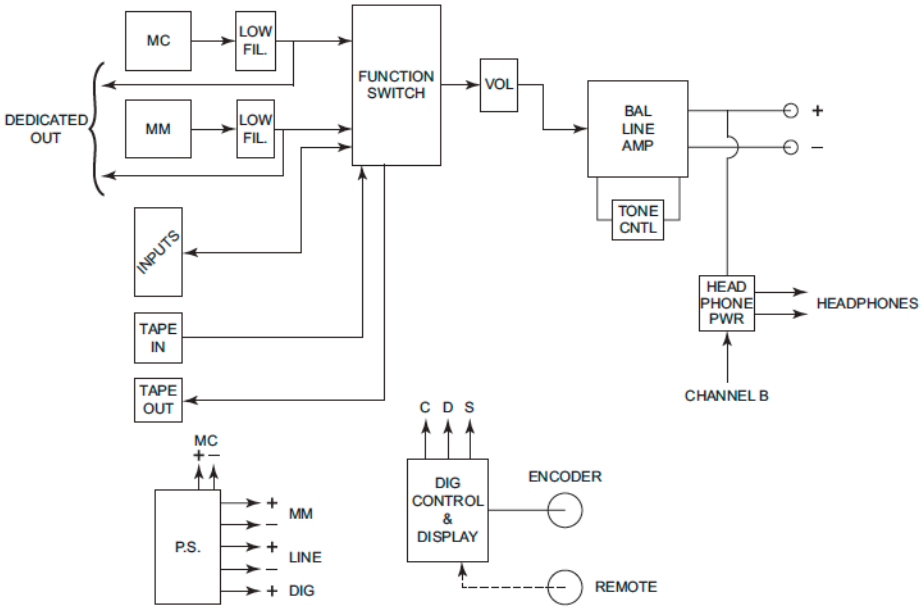
New Feature

1. 新しいボリュームシステムはアナログフィーリングで、スタティックノイズを 1/4 から 1/5 に低減しました。
2. 新設計のラインアンプは歪みをより低減、ノイズレベルも 20 μ V 以下に改善しています。
3. フォノイコライザー内蔵モデルの MC カートリッジ用サーキットは完全に再設計、より低い歪み、優れた低域安定性を得ています。
4. 電気的特性はノイズレベルを除いて旧モデルとほぼ同じです。
5. クーリングファンシステムはコンストラクション再設計により、削除されています。
6. ホームシアター用バイパス回路もコンポーネント間のシンプルなワイヤリングのために装備されました。
7. フロントパネルはブラックアノダイズへアライン仕上げ、エンブレムはシルバーになりました。
8. 製品ラインナップはフォノイコライザー内蔵モデルとラインアンプモデルの 2 種になります。

今日、オーディオコントロール / プリアンプはリモートコントロールの時代となっています。Ambrosia2000SE は完全なメニュー操作式で、リモコンもアンプのフロントパネルそのままの操作が容易にできます。Ambrosia2000SE は完全にデジタル制御されていますが、オーディオ信号経路にデジタル回路もしくはデジタル処理の過程はまったくありません。信号経路は 100% アナログです。全てのオーディオ機能はデジタルで制御された 11 個のとてもエキゾチックなアナログスイッチによって制御されます。またボリュームコントロールはデジタル制御されたアナログスイッチ形式ながら、通常のリスニングレベルではいわゆるオーディオボリュームフィーリングを持ちます。機能、動作の状態はフロントパネルに表示されます。全ての機能は一つのオプチカルシャフトの ADJUST エンコーダーに繋ぐ 5 つのタクトスイッチ経由でアクセスされます。（リモコンの ADJUST エンコーダーはバッテリ電源のためメカニカルなものです。）

主な特長

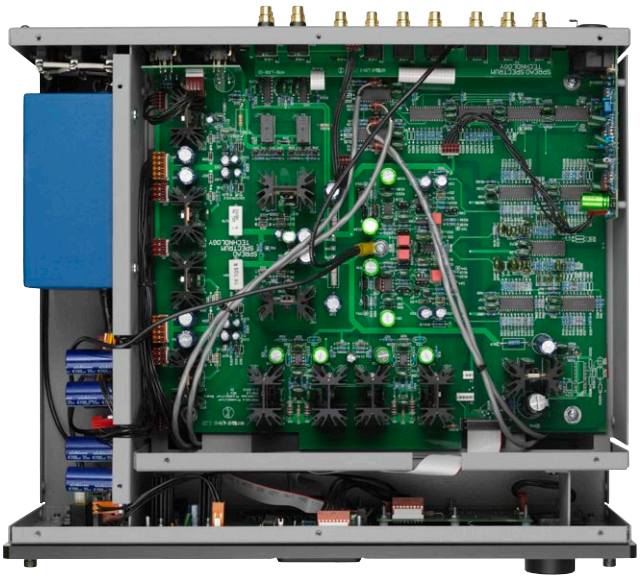
1. 極低エミッションの電源トランス。それぞれ完全に独立の回路の電源入れに使用する四つの二次巻線があります。グランドループもしくは電源ノイズの可能性を完全に排除します。
2. 完全な電磁波耐性用に 15 個の独立電源レギュレータを備えます。
3. フォノイコライザー内蔵モデルはアナログレコードを最大に活かせる最高レベルのフォノイコライザーを内蔵しています。かつての THAEDRA にもあったように MC と MM カートリッジ専用の完全にセパレートされた回路で、どちらもそれぞれ高精度な RIAA イコライザー機能を持ちます。
4. MC と MM それぞれの回路に全ての内部スイッチングをバイパスするダイレクト出力があり単独の RIAA-EQ アンプとしても使用可能です。
5. 各回路にはそれぞれ切替可能な専用ローカット（約 20Hz）のフィルターがあります。
6. 4 系統のライン入力（プラス 2 セットのテープ入力と出力）の内、バランス入力 1 セットはアンバランス変換プラグにより、アンバランス入力として使用できます。
7. フロントパネルにある二つのヘッドフォンのジャックへは専用のユニークなチャンネル毎 4.5 ワットのバランスド電源バッファアンプより供給されます。
8. ラインアンプは本質的にゼロ歪みの非常にエキゾチックな回路で完全なバランスサーキットです。実際に、本機の全ての歪みはハイレベル入力においてのパッシブスイッチとボリュームコントロールからしか出ない特別なもののみです。これらのディストーション部分は「パッシブ」で、回路からのノーマルなダイナミックディストーションと比べても聞き取ることはできません。
9. ラインアンプには完全なトーンコントロール、低音域と高音域、それぞれ 4 つのターンオーバーポイント選択可能な回路を備えています。
10. 外装はブラックアノダイズへアライン仕上げのアルミフロントパネルと、14Ga の強固なスチール製シャーシで構成されています。



フルファンクションリモコン

フォノ EQ 内蔵
モデル

ラインアンプモデル



内部コンストラクション

製品仕様
■ゲイン
MC　　0dB(1600x) to TAPE OUT
　　-6dB(800x) to TAPE OUT
　　-12dB(400x) to TAPE OUT
(リアパネルでスイッチ切替)
MM　　42dB(125x) to TAPE OUT
LINE　　21dB(11x) to MAIN OUT(すべてのライン入力とテープ入力)
■ボリュームコントロール：-69 to +20
■モード切替：STEREO,STEREO-Revers,MONO
■全高調波歪率：MM&MC 0.05% 以下　20Hz - 20kHz (2V TAPE OUT)
　　LINE 0.05% 以下　20Hz - 20kHz (2V MAIN OUT)
■ノイズレベル：MC 20Hz - 20kHz FLAT — 70 nV 以下　400Hz - 20kHz 35 nV 以下
　　MM 20Hz - 20kHz FLAT — 300 nV 以下　400Hz - 20kHz　200 nV 以下
　　LINE 20Hz - 20kHz FLAT — 5uV 以下

■最大出力：10V RMS
■ヘッドフォン出力：ステレオ専用アンプ、30 Ω、2out
■入力：TUNER,AUX,CD,BAL,HT　MC,MM（フォノ EQ 内蔵モデルのみ）
■入力インピーダンス：MC 1k Ω ,MM 47k Ω ,LINE 40k Ω ,
　　バランスインプット -- ± 50k Ω バランス , 50k Ω アンバランス
■トーンコントロール：
Treble -7 to +8、ターンオーバー切替 270,330,400,515Hz
Bass -8 to +7、ターンオーバー切替 2.7k,3.2k,3.9k,5,0kHz
■パススルー：ON/OFF 可能
■消費電力：50W /　フォノ E　Q 内蔵モデル、35W /　ラインアンプモデル
■電源：100V（50/60Hz)、1A
■AC アウトレット：スイッチド 3 系統、アンスイッチド 3 系統
■シャーシ：#14 ゲージスチール、パウダーコート仕上
■リモコン：フルコントロールリモコン付属（電源スイッチ o　n/off　　を除く）
■外形寸法：444W x 178H（パネル H /158）x 372（シャーシ D ）/440(+ ノブ端子）Dmm
■重量：22.0kg / フォノEQ 内蔵モデル、18.5kg /　ラインアンプモデル

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2011
the absolute sound
PRODUCT
OF THE YEAR
AWARDS

Spread Spectrum Technologies Ambrosia

James Borngiorno's new preamplifier is a statement design for—and almost a gauntlet flung at—an increasingly miniature and minimalist world: a two-channel full-function *traditional* preamplifier complete with phonostage (two in fact, for moving magnets and moving coils), tone controls and filtering, headphone amplifier, and as much flexibility as anyone is likely to need. The unusually well-designed tone controls make quick and easy work of correcting problematic recordings, and a novel remote handset covers all operations with rare simplicity and user friendliness. The sonics of the Ambrosia match those of the Ampzilla 2000: great vitality, life, and lifelikeness with no sacrifice of neutrality in a presentation free from electronic artifacts. The moving-coil phonostage is a single gain circuit that is essentially dead quiet (like the rest of the preamp), explosively dynamic, and good enough to obviate the need for an outboard step-up device, making the price even more attractive. As with the companion Ampzilla amps, PS would buy this in a moment if he were to give up reviewing. *PS (219)*

A Chat With Amplifier Design Legend James Bongiorno

Robert Harley

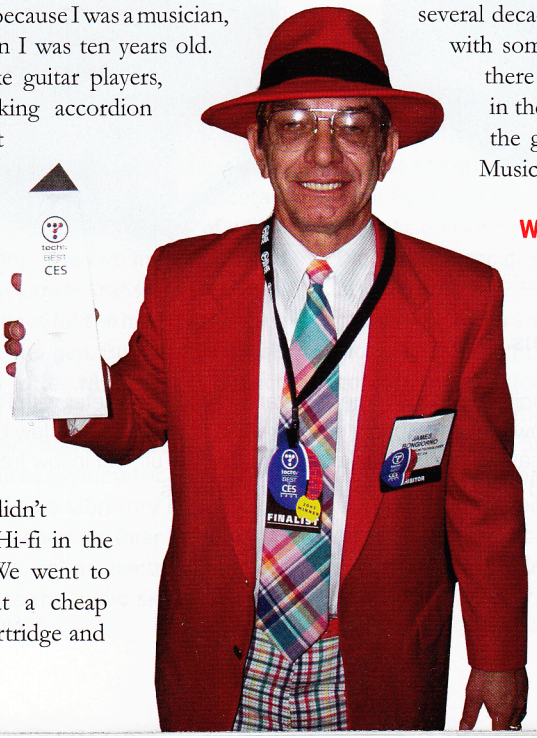
James Bongiorno is best known as the founder of Great American Sound (GAS) in the mid-1970s, and as the creator of that company's now-iconic Ampzilla power amplifier. The GAS Ampzilla and its descendents not only sounded terrific and sold in huge numbers, but also exemplified the American hi-fi movement driven by a designer with nothing but talent, a dream, and a kitchen table.

But before Great American Sound, Bongiorno made many other contributions to high-end audio while working for Dynaco (he is the author of the Dynaco 400, for example), Marantz, and SAE. While at SAE, Bongiorno claims he was the first to conceive the full dual-differential complementary amplifier topology that is the basis for nearly all modern solid-state amplifiers.

Now Bongiorno has revived the Ampzilla name with a new company and new designs. As Paul Seydor reports in the accompanying review, the old master has not lost his touch. Despite a long battle with cancer and advancing years, Bongiorno is no less audacious and flamboyant (the photo reflects his daily dress) than in the heyday of Great American Sound.

I spoke with Bongiorno by phone, and began by asking him how he came to be an amplifier designer.

James Bongiorno: I got started because I was a musician, beginning with the accordion when I was ten years old. We wanted to have amplifiers, like guitar players, but the two big companies making accordion amplifiers didn't have a clue what the accordion should sound like. It's a real acoustic instrument, not a mechanical thing like a guitar with a magnetic pick-up, and needs a microphone. I started messing around in my teens studying amplifiers so that I could build an accordion amplifier.



At about this time accordion teachers started making their own recordings, and as students we wanted to hear them but didn't have anything to play them on. Hi-fi in the 1950s was almost non-existent. We went to the electronics store and bought a cheap Bogen turntable with a ceramic cartridge and plugged it into our instrument amplifiers so that we could hear our teachers' records. I thought that was terrific, but I wanted to build a better amplifier.

Robert Harley: Did you study electronics formally after that?

JB: No, not really. I have studied periodically throughout my life and have had several mentors. I worked in New York as an electronics technician and was going back and forth between the electronics business and the music business.

I got hired by Sid Smith at Marantz, and Sidney ended up becoming my best friend in life and my mentor for 35 years before he passed away. I worked for Dick Sequerra at the time, too.

I spent a year at Dynaco where I designed the 400 and a few other products. When I came back to California the second time I got hired by Morris Kessler, as the director of engineering at SAE. Ostensibly I was supposed to replace Ed Miller, who wanted to leave, but during the interim of my relationship with Ed, he probably taught me more about RF than anybody. Ed was the founding partner of Sherwood. Before that, he had a company called Radio Craftsmen, and he had hired Sidney [Smith]. We were in a group of designers that knew each other over several decades. I was lucky because I was able to work with some of the greatest audio engineering minds there were. I felt privileged. I did the same thing in the music business too, studying with some of the greatest musicians and teachers there were. Music was always my first love.

What were the circumstances that led you to start Great American Sound in 1974?

JB: Well, that was kind of a lark. At the time, I was probably one of the highest paid audio engineers in the world. I was working for SAE and a few years before, I had written a few articles for the various magazines like *Popular Electronics*, *Radio Electronics*, and *Audio*. One day the editor of *Popular Electronics* called and asked if I would design a do-it-yourself amplifier project article for the magazine. At first I said "No way! Are you kidding me? I

don't want to be bothered with that." But he kept bugging me and wouldn't leave me alone.

Finally, I got my engineering crew together, and we were sitting at Denny's having lunch one day trying to think about what we would call this kit amplifier. One guy thought of the name "Tigersaurus" but I said it had already been used, and I immediately thought of "Ampzilla." It came out of the clear blue sky and the guys looked at me like I was stark raving mad.

So we designed this thing and then Morris [of SAE, Bongiorno's employer] decided he didn't want to do this after all. There I was with my neck stuck out; the article had been done and paid for, and was going to appear on the cover of the first issue when the magazine went from small size to full-sized. Morris offered me a choice of staying with SAE or following my dream with the Ampzilla. So I resigned from SAE, took a couple of guys with me, and built a company in my living room.

What was it about the Ampzilla that made it such a massive hit?

JB: First of all it was inexpensive, and secondly it was the first full dual-differential complementary amplifier along with the previous SAE amps that I designed. The world had not discovered this yet. This was my original contribution to the world of audio. The performance characteristics were just pretty spectacular. And the price was only $375 as a kit. I submitted it to *The Absolute Sound* for review, and in the issue they reviewed it they also reviewed the SAE 3C and Dynaco 400, both of which I had also designed [laughs].

Harry Pearson had reduced the rating of the Audio Research—I think it was the D75 or D76—one step down and put the Ampzilla as equal to it. Of course, everybody went nuts—"Oh, wow! $375!" We were overwhelmed with orders and had to move fast.

I looked at the future and thought there wasn't much future or profitability for a kit company. It's a royal pain. I put the word out that there would be no kits after the first 50, only factory-wired units and that the price would go up. We established a dealer network, and that's when I began to work on the preamp and Son of Ampzilla, and so forth.

What happened that led you to leave Great American Sound?

JB: I had GAS for three years, but I ended up with a bunch of partners who didn't know anything about business, and they just drove me stark raving mad. I finally made them buy me out.

Tell me about the new Ampzilla products. How similar or different are they from the original?

JB: There's no similarity whatsoever, just the name. When I finally got out of GAS, I sold a few of my records, and then I started another company called Sumo. That was supposed to have been a partnership between my Japanese distributors and myself because we figured it would be a nice marketing name for Asia, as I'd had a big impact in Japan with the original Ampzilla. However, the Japanese ended up getting cold feet and backing out, and here I had already designed the stuff and established it so I just had to carry it on myself. But the difference was that the amplifier, the first one, which was a big amp called The Power, was the largest audio amplifier in the world at that time—450 watts per channel into 8 ohms. It was a really nice amplifier, a fully balanced bridged amplifier. And to my knowledge—and I don't know this to be an *absolute* fact, but I am pretty sure about this—even up until today, with my current stuff, no company has ever produced a true, full, balanced, bridged power amplifier.

I've got to give credit to John Curl, because John and I both came up with certain things around the same time, even though we weren't working together. The things he came up with I also came up with, so we shared a little history. I'm talking about the preamp here, the full complementary preamps that no one else in the world had ever done, and we were the only ones doing it. Of course, today everybody does it. That's the thing—I wish I had a nickel for every time somebody copied my circuit in the last 30 years! I'd be rich!

You should have patented it.

JB: Well, the problem with circuits is that they usually don't satisfy the "unobvious clause" of the patent law. So I was out of luck, but I do have a patent on my Class A circuit, because that was not a nuts-and-bolts thing; that was a concept. It's a lot harder to come up with a concept.

What did you do in the years between Sumo and the new Ampzilla?

JB: I suffered a lot with my liver problems and multiple surgeries. I lived on my yacht for about 18 years. They originally told me I was going to die, but luckily I found the right surgeon who saved my life. I just had to keep at it, and I did little upgrades and mods and stuff like that.

I'm not going to name names here, but there was a guy who wanted me to design an amplifier for his company, and the guy turned out to be a crook, but that's beside the point. I ended up designing this amplifier that I was not going to turn over to him, because he didn't pay me. I was boxed into a corner. So here I am with an amplifier, and I just turned it into Ampzilla 2000. It's been pretty good. We've made over a thousand of them, and for one little guy, that's not too bad. It's a nice amplifier, I think. I'm not going to go out and boast or do anything like that. I'll let others flap their lips. I just make 'em.

You're quite an accomplished jazz pianist. How has your musical background affected product design?

JB: Music has always been my first love. I spent a *lot* of years in the music business on the road and traveling, and there's nothing like it. It's a creativity which is always spontaneous, every second of your life. I have a Yamaha concert grand piano, almost brand new, which is just magnificent. It's nice to be able to sit down and play and lose yourself in another world. By the time I really got around to delving into that arena, it was too late. But I did make four recordings, all done before my current spate of health problems.

I'm an old fuddy-duddy. I'm not one of these young guys. I look at music and I say, for me, there are only three kind of music. There's classical music, there's opera, and there's jazz. Other people can go and listen to whatever they want, you know? But for me, that's all I really have time for. So jazz is something that I can sit down and work out at the piano and have a real good time playing it. So... that's where that's at. tas