SILBATONE ACOUSTICS
New Audio Legends

www.silbatoneacoustics.com
EXCITEMENT OF THEATER SOUND IN YOUR HOME

No other manufacturer makes the surprising claim that vintage audio gear can be better than modern equipment or the even stronger statement that 75 year old systems can provide the ultimate reference for musical reproduction, but Silbatone recognizes that the great Western Electric theater systems of the 1930s established a level of performance that remains unsurpassed to this day.

Nowadays, it is very difficult to find an opportunity to listen to a complete Golden-Era Western Electric theater system due to extreme scarcity and the practical problems of installing full-sized amphitheater speakers in most listening rooms. We have worked the past 30 years to assemble one of the finest collections of Western Electric theater gear in the world and our research is based on listening to complete, large-scale Western Electric systems as detailed in WECO/ERPI specifications, using the best modern analog and digital source equipment.

Not only is the performance of Western Electric unsurpassed within the specialized technical goals of 1920s-1940s theater sound, but we discovered many lessons for contemporary home music reproduction in these great classics. The musical presentation of large-scale theater systems is entirely different from modern audiophile gear: faster, smoother, more dynamic and vivid, but also extremely natural and unforged. One is impressed by extreme delicacy and nuance, as well as the raw power of large horns and multiple 18 inch field coil woofers. The scale and impact of the experience is far beyond typical high-fidelity approaches, a different world.

Today, it is common to read of triode amplifiers and horn loudspeakers in the audio press. We agree that some of this equipment can represent progress over the high-powered amplifiers and inefficient speakers of the 80s and 90s. However, not all modern tube gear achieves the highest performance. Also, system matching from available components and speakers can be a challenge. The excitement that classic technology can provide is elusive, requiring a systematic and thoughtful approach, but it is well worth the effort.

The goal of Silbatone Acoustics is to recreate the musical enjoyment of the great theater systems in the home, creating practical realizations for domestic installation. Much of our design work is focused on challenges of practical system building, ergonomics, and flexibility. Our SE triode amplifiers are engineered to work with modern speakers beyond the capabilities of most competitive products. You won’t need a horn loudspeaker to enjoy our single 300B amplifiers, even though we are horn specialists, confident that our single driver horn approach, a legacy of 1930s theater sound, presents the ultimate satisfaction for audiophiles inspired to pursue the promises of this legendary technology.

The Silbatone Approach

Some core technologies that are central to the Silbatone philosophy are dedication to triode power amplification and the use of the finest parts, especially the use of silver conductors for the detail and immediacy that careful use of this material can bring to musical reproduction. We believe that the best path to value does not involve cheap solutions in the manufacturing department. Silbatone combines the best of the old and the new, without being slaves to the past or followers of contemporary fashion. Modern engineering and materials and an uncompromising vision are at the heart of Silbatone new audio classics.

Many critical parts are specially designed and built for our products. We researched audio output transformers using pure silver foil, which led to our exclusive “semi-silver” process, layering silver on copper for superior mechanical and electrical properties, while maintaining the sonic benefits of silver foil. Our in-house designed Silbatone semi-silver foil output transformers use an optimized premium nickel core and pure silver lidz lead wires for the highest performance.

In 2001, Silbatone created the world’s first fully battery operated tube preamp and stereo 300B amplifier. We believe that use of our special state-of-the-art power supplies can provide the purity and low-noise of battery-operation with maintenance-free enjoyment and greater dynamic range than batteries can provide. Old fashioned tube power supplies can sound pleasant but far better performance can be obtained through purposeful engineering. Poorly-realized modern regulated supplies give modern technology a bad name and power supplies are no place to compromise or seek economic solutions. All Silbatone electronics are designed with extreme high-efficiency, full-range loudspeaker systems in mind, so vanishing low noise is a major concern but never at the expense of musicality.

An additional practical benefit of advanced power supply technology and our efficient high bandwidth transformer design is that Silbatone amplifiers can drive many modern speakers that leave orthodox single triode 300B amps behind the power curve. Many happy owners of Silbatone 300B amplifiers choose contemporary speaker designs such as B&W and Wilson Watt/Puppy. Not every 300B amplifier can rise to this task but Silbatone invites you to listen for yourself.

We feel that horns can provide the most exciting and involving listening, but most horns on the market are severely compromised realizations or recycled 1950s DIY projects. The problems of crossovers and matching horn midrange to direct radiator LF drivers are avoided with a single driver horn, but until now this approach has been severely limited due to challenges of design and manufacturing. We hope to demonstrate the promise of this uncompromised approach to a wider audience with our APORIA loudspeakers, built without compromise using best available materials and optimized geometry, in spite of the high costs and difficulty of manufacturing this product.
Inspiration of the legends...
Contemporary realizations for enhanced musical experience

Reference 300 Stereo Amplifier

Our flagship integrated amplifier, the Reference 300, presents the ultimate refinement of our 300B stereo integrated approach. This is a platform to realize the highest musical potential of the WE300B triode, engineered for the way today’s audiophiles build world-class systems.

The Reference 300 is a cost-no-object realization of the stereo integrated triode amplifier. Broadcast grade attenuator with solid milled knobs permit precise control.

Five input switch is a high reliability unit. We designed the Reference 300B to be an effective and elegant control center for your system.

As with other Silbatone products, build quality is far beyond most commercially-produced amplifiers. Teflon boards, custom silver capacitors, and silver litz internal cabling are employed for ultimate musicality and detail. Our latest generation “Semi-Silver” foil-wound nickel core output transformer stands alone in musical quality. The chassis is CNC milled from aluminum billet, designed by a celebrated industrial artist for visual aesthetics and functional considerations such as shielding, cooling, and vibration control.

The power supply in the R300 is very stable under load, offering extremely low noise and a very low source impedance. This overbuilt PSU results in an amplifier with incredible drive capability for an 8W single ended amplifier. The R300 is often partnered with modern speakers such as the Kharma models and Wilson Watt/Puppy which do not perform well with typical 300B amplifiers.

The output transformer we developed for this amplifier uses our exclusive semi-silver foil technology, wound on an oversize core of exotic nickel material. Lead wires are pure silver litz. The extremely high efficiency of our silver foil transformer design contributes to the strong drive capability and exemplary low frequency performance of the Reference 300 amplifier. With this new transformer, we are at the extreme limits of transformer performance using existing materials and the subjective listening results are as encouraging as the technical specifications.

Voltage amplifier (E180CC) is industrial-grade twin triode device, chosen for high performance. The rare and very costly Bendix 6990 is offered as an upgrade over the 5677 used in our J-300 amplifiers, recommended for those seeking the ultimate tube selection for music listening. The R300 is compatible with original WE 300B power tubes and modern improved versions.

The Reference 300 is easily the ultimate integrated amplifier in existence today and we are quite confident that it is among the very finest music amplifiers ever produced.

- Exclusive Semi-Silver nickel core output transformer with pure silver litz lead wires.
- Tokyo Ko-on broadcast attenuator, highest-grade five input switching, solid milled knobs for positive control.
- Removable tube cage for protection and international compliance.
- WE300B, E180CC, 6900 vacuum tubes.
- Precision machined aluminum chassis for shielding plus heat and vibration management.
- Powerful 8 watts, 4/8/16 ohm output, compatible with quality conventional speakers.
- 37 kg, 50cm x 47cm x 26.5cm
JI-300 MK.III STEREO INTEGRATED AMPLIFIER

The Silbatone JI-300 Integrated amplifier series has been a popular and highly-acclaimed product line for almost a decade. The previous version, the JI-300 mk.II, was recognized as “the best integrated amplifier in the world” by Enjoy The Music.com and owners would enthusiastically agree. Although hundreds of units were sold, it is very rare to find one available on the used market because it is difficult to surpass. Many important refinements have been incorporated into the latest generation of the JI-300 amplifier, which we call the JI-300 mk.III, raising it to an even higher level of musical accomplishment.

The JI-300 Mk.III is designed as an elegant and ergonomic control center for your audio system. The unit incorporates a high grade five-position input switch and broadcast-grade Tokyo Ko-on attenuators. Controls are via large and comfortable milled aluminum knobs set in bearings for positive and smooth operation. Speaker terminals are high-grade WBT, placed on top of the amplifier chassis for easy access.

The chassis for the JI-300 is an extremely solid milled aluminum construction, which provides a very stable mechanical foundation, excellent shielding, and efficient thermal management. The JI-300 amplifier also presents itself well as a beautiful item of industrial art which you will be pleased to have in your listening room.

In the JI-300 mk.III, audio and power supply circuits have been substantially upgraded over previous versions. We have incorporated the same costly Teflon circuit board used in the Reference 300 amplifier and we employ pure silver litz wire in critical signal path locations, an expensive touch that makes a substantial difference in sonic presentation.

The JI-300 mk.III is supplied with E180CC input tubes and the driver tube is a 5687. Other nine-pin tubes such as 5965, 7119, and 6900 can be substituted depending on listener preferences. Western Electric 300B tubes remain our triode of choice for medium power application.

We expect that listeners will be quite impressed with our newest member of the JI-300 family. With the substantial improvements introduced in this version, the performance difference between the JI-300 and our flagship Reference 300 amplifier is reduced. While not inexpensive, we are confident that the JI-300 mk.III presents the highest-possible value in its class and a worthy contender for the attentions of the most discriminating music lover.

Silbatone A-845 Mono Power Amplifiers

We are usually very obvious about our preference for the 300B tube, but often more power is required to make the best of certain rooms and speaker preferences. Our new Silbatone A845 amplifier provides an optimized solution to these issues, using transmitting triodes to reach into the 20 watt range without compromising the technical and performance aesthetics of single ended triode amplification.

The A845 is a single ended triode power amplifier that can accept various 4 pin RCA 845 and 211 type power tubes, including Western Electric 211, 284D, 284, and 242C. The direct coupled, choke-loaded driver stages use an exotic WE 437A voltage amplifier and your choice of 10Y, VT-25, 252A and 275A triodes to excite the grids of the power triodes. Our innovative configuration of stacked positive ground power supplies allows for easy flexibility in tube choice with no interstage capacitors. It is as close as you can get to hearing tubes alone! A WE 422A rectifier is used as a PSU filter tuning device and a controlled turn-on element for the HV supply.

It is nice to have an amp that will allow us to showcase rare and expensive vintage tubes from our collections but we wouldn’t do this with any old amplifier! Certainly the A845 is not a glorified DIY project like most of the very expensive commercial large triode amplifiers seen to date. Our machined aluminum chassis set the standard for handsome appearance and electro-mechanical robustness. We use high-bandwidth nickel core output transformers and nickel driver chokes. Internal circuitry is hardwired on Teflon slabs. We made a sincere effort to employ the best materials and most thoughtfull electronic designs in the industry, to create a once in a lifetime high power triode amplifier. When going this far, why compromise anywhere?

The sonic character of the A845 amplifier depends very much on tube selections but the basic flavor of the unit is a colorful, natural, dynamic, and huge presentation that is a joy to experience. We are sure that tube lovers will appreciate what our big amplifier can do and we invite you to explore the world of large triodes with us!
Silbatone C-100 Preamplifier

The C-100 is our latest statement in MC phono and line preamplification. Since we are still great analog enthusiasts, we tried to achieve something special in MC phono design in the C-100 project because it is hard to find really great phono preamplifiers and we took it as a duty to expand the art.

Our phono stage uses a German telecomm-grade D3a tube in a radical new transconductance amplifier circuit that achieves a remarkable 10000x gain with one tube, with very low distortion and super-low noise. Equalization is implemented using passive LCR filters with nickel core inductors and precision matched capacitors. Our MC step up is silver wound on huge amorphous cores and we are confident that they are among the top few units available at any price anywhere, because we compared everything out there and we know the real story.

The C-100 line stage offers balanced or unbalanced inputs and outputs, featuring silver wired stepped-impedance volume controls with an integral input transformer, a pair of rare NOS Bendix 6900 triode tubes in a self-balancing Blumlein arrangement, and a silver wired line output transformer on an amorphous core. This topology was inspired by classic studio program amplifiers but realized with a discriminating modern ear for components and materials.

All in all, the C-100 design is as close as we could get to using only tubes and wire. Low audio parts count and simple signal path although we took a technically sophisticated and expensive path to get there. No capacitors are used in the line stage and only one coupling cap at the output of the phone stage. Silver litz cabling is used throughout the unit.

All of this adds up to a rather substantial and sturdy package worthy of the King of Preamps, housed in a machined aluminum enclosure finished to Silbatone’s customary high standard of visual appeal and mechanical solidity.

Silbatone C-102 MK2 Preamplifier

The C-102 is already a unique statement in the “high end” audio world. Battery powered tube phono and line amp says a lot, but the parts quality, amazing finish and a sound some have described as the best ever, has secured its place at the top. We haven’t left well enough alone. The new C-102 MK2 retains all the obsessive attention to detail of the original, but upgrades the performance to a new standard.

The new phono stage now incorporates the Western Electric/Raytheon 404A/6688 pentode for more detail and lower noise. WE/Raytheon 420A/5755 triodes do buffering and RIAA make-up gain duties. This performance is achieved with only 3 milliamps current draw per channel. Silver litz wire and V caps are used through out. The 520 Volt battery power supply insures the lowest noise and supply impedance possible. The charger design monitors battery state for peak performance and long life. The entire module is built point to point on 5mm Teflon with gold plated solder points.

The line amp has been upgraded with changes to the biasing and the operating point to achieve better small signal resolution as well as transient response. The silver litz and silver coupling caps are used throughout. The construction is done on the same 5mm Teflon. No cost has been spared. It is difficult to improve things at the top, it is said, but that is what we have done. You can expect more air, space and a substantial quality to digital recordings, as well as a gracious compliment to the best analog.

Add to this the magnificently machined aluminum cabinet and you have a remarkable combination. Maximum flexibility is offered with many inputs and matching capabilities. Connector quality is first class. The battery supply and charger are in a separate stackable chassis. Electrical connections are made via umbilical. The new Silbatone C-102 MK2 Preamplifier raises the standard.
APORIA Full Range Horn Unit
Full range 30-35000hz measured in-room response

Single-driver theater horn classics such as the early Western Electric units set standards in immediacy and dynamics in musical sound but the early systems were not designed for the high frequency performance or the low frequency extension we demand today. Furthermore, most classic full range horns are too large and really not practical for home use.

Multiple driver horn systems, with problematic crossovers and problems of matching horn midrange to direct radiator LF drivers, do not compare with a true full range horn.

The Aporia is our attempt to reinvent full range horn technology for contemporary audio applications. Using a custom flat-cone Manger driver from Germany and geometry optimized for smooth wave flow and compact form, our APORIA marks a new standard in full range horn reproduction for today’s listener. Finally the beauty and promise of the idea of a single driver, full-range reproducer meets a worthy realization, with none of the compromises of 1950s hobbyist approaches!

The unique geometry of the Aporia is designed to sharp corners and ensures a smooth expansion throughout the length of the horn. The unit is precision-formed from special high-density, antiresonant composite material which avoids problems with unwanted vibration and ringing. At 130kg per side, the Aporia is a rock-steady source for your music.

After considering many alternatives, we chose the Manger driver for our horn because we feel it is one of the unrecognized giants among drive units of the last 100 years. The Manger unit is a medium sensitivity speaker which provides a moderate sensitivity in our horn. When very high sensitivity is the only engineering goal, musicality can suffer and excessive sensitivity can give rise to problems, including noise issues and limited usable volume control range. At 92 dB sensitivity, the Aporia is in a comfortable range, which works well with medium powered tube amplifiers as well as triode amplifiers.

The flat cone of the Manger driver can yield limited dispersion, so we designed a diffuser which enhances performance in listening room situations. The remarkable presence and dynamic range of the Aporia horn energizes the entire space with music. There is no sensation that sounds are coming from speakers. The musicians will be as though playing in your listening room. Aporia presents a new benchmark in musical experience in the home!

APORIA IRIS SPECIAL EDITION

Featured in a world debut at 2010 CES, we are proud to present the APORIA IRIS Special Edition. This is a revoiced edition of our flagship APORIA Single Driver Horn loudspeaker system and a demonstration of other musical dimensions of our unique Manger driver based horn technology.

Our highly-acclaimed standard APORIA is tuned to provide full-bodied sound on strings, vocals, and orchestral music. In the APORIA IRIS Special Edition, subtle tuning adjustments shift the tonality toward a more lively & forward sound for the jazz lover. The solid bass performance and silky, extended highs of the APORIA are retained in the IRIS Special Edition, while exploring new possibilities for customizing Silbatone systems for listener preferences.

Outfitted in a distinctive ruby color that sets it apart from the crowd, the sonic presentation of the APORIA IRIS provides a different flavor from our standard APORIA, but we think you will find it very tasty indeed!