

SILBATONE ACOUSTICS

New Audio Legends



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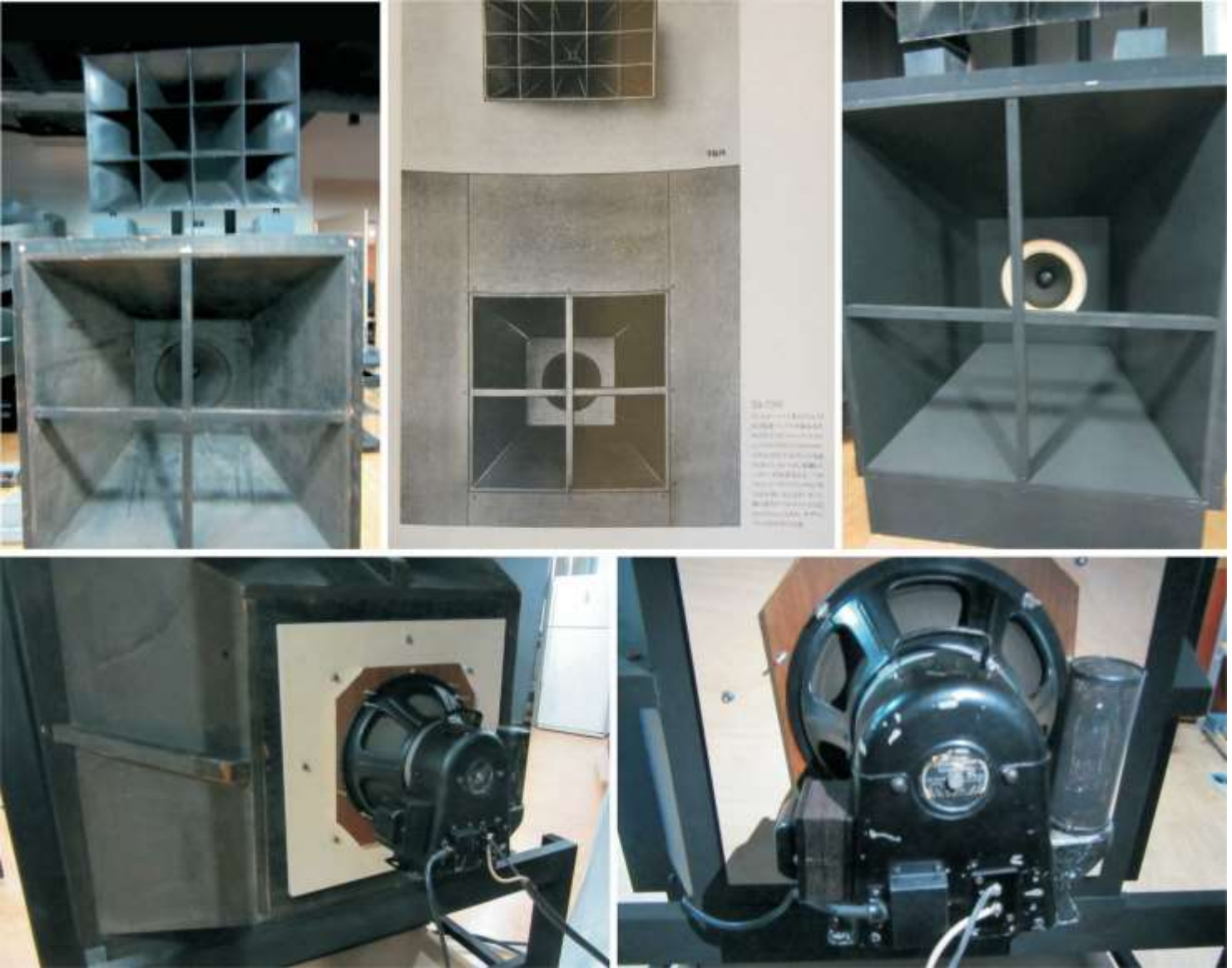
Silbatone Acoustics mission is to capture the impact and excitement of the great Western Electric triode and horn theater sound systems of the 1930s for modern home musical enjoyment. We are great enthusiasts of great classic equipment but we recognize that progress can and must be achieved. Modern materials, manufacturing techniques, and generations of perspective on circuit design are resources which allow us to take this inspiration to ever-higher levels.

As dedicated tube lovers and collectors, we put a lot of emphasis in choosing the highest quality tubes for our creations. Given our small-workshop handmade approach, we are not limited to currently manufactured tubes from China and Eastern Europe. All of our products feature NOS tubes and we often select extremely rare specimens from our extensive collection to produce limited or custom designs. Too many legendary tubes are being "conserved" forever in closets...they deserve to be heard and appreciated! Life is too short to save every rare tube. Let's enjoy!

Our concern with parts quality goes far beyond vacuum tubes. Silbatone creations use the best silver-wired magnetics available. Our power amps use our proprietary high bandwidth, low-loss "semi silver" foil output transformers on high nickel or Finemet cores. All of our products are wired with silver litz cabling. Volume controls are silver transformer type or broadcast-grade attenuators. Substantial precision machined, hand finished aluminum chassis contribute to the sound as well as the beauty of our instruments.

The Silbatone design team of jc morrison and Dr. Stefano Bae specialize in minimal parts count, directly coupled designs using intelligently innovative topologies with sophisticated power supply implementations. In recent years, our engineers have been working with hybrid circuitry and now digital to follow the path of technical and musical improvement and meet the needs of our listening public. No Silbatone products are copycat designs and we do not make any design compromises to meet arbitrary price points.

Since Silbatone's target market is limited and our audience consists of highly-specialized and experienced audiophiles like ourselves, we feel a special relationship with the people who appreciate our extremist approach. Our goal is not to profit in the marketplace but to achieve musical enjoyment and contribute to the evolution of sound system design. Our 2015 lineup represents the current state of our engineering achievement and we are pleased to share it with you today!



Western Electric TA-4165 12" Field Coil Loudspeaker

For the past several years, Silbatone has enjoyed presenting famous and rarely-heard Western Electric theater sound systems at the Munich show to some measure of public acclaim and appreciation.

In contrast to large-scale systems like the Mirrophonic Model 1 and the 12a and 13A horns of the ancient Vitaphone system, this time we are presenting a modest 12" field coil cone speaker, the WE TA-4165, which is little known to the history books and unrecognized even among Western Electric collectors. We selected it because it is an excellent performer and it pairs well with the lower powered amplifiers that we are exhibiting this year.

In its day, the TA-4165 was presented as a system for small theaters, a few hundred seats at most. Typically, it would have been mounted on a large flat baffle. This was a simple, relatively economical, solution satisfactory for many purposes. We mounted it on a TA-7395 horn baffle originally intended for the TA-4181 18" woofer, in order to end up with a moderate-sized installation, one could say an appropriate setup for an audio show demo room.

However, as circumstances permit, we hope to also demonstrate a larger-scale system inspired by the Mirrophonic M5, utilizing the GIP 594A drivers with the finest Mirrophonic-era horns, the WE 24As and a pair of GIP TA-4181 woofers in the TA-7395 baffle.

New value line for 2015

Silbatone DAC105 Converter and L105 Line Amplifier

We at Silbatone are strong advocates of vacuum tube amplification and well known to take the technology to extremes. In recent years, laboratory tests and listening evaluations have pointed us in the direction of hybrid JFET/tube circuitry where vanishingly low noise and studio-grade accuracy are concerns. Our designers are artists when it comes to integrating tubes with modern devices and the circuitry of the DAC105 and L105 are quite unlike any previously-known designs.

Our first digital offering, the DAC105 Converter combines State of The Art digital design with highest-performance analog stages we could invent for the task. Native DSD (2.82MHz/64fs, 5.64MHz/256fs), 32bit/384kHz sampling rate with automatic switching, based on 2x ES9018 Reference DAC chips from ESS Technologies. Asynchronous USB eliminates jitter. Two S/PDIF outputs (ABS/EBU and coaxial) with super shielded digital transformers reduce jitter. Optical SS/PDIF is also furnished.

The analog section of the DAC105 had an AD797-based IV converter into a fully-balanced, ultra-wide bandwidth (10-500kHz) using a Telefunken 6211 and JFET buffer which does not require an output capacitor. All audio wiring is silver litz. We feel the DAC 105 is a technical tour de force and we invite musical comparison with any D/A converter at any price!

The matching L105 Line Amplifier is an innovative adaptation of the symmetrical, fully balanced circuits used in classic tube studio gear. A balanced FET input stage drives a differential 8416 triode stage which is buffered by balanced parallel JFETs. The output is servo-controlled to avoid the need for output capacitors. Remote control is provided for source selection and volume control, provided by a Tokyo-Kouon broadcast grade attenuator. All audio cabling is silver litz. The 8416 triode is a super tube and it sets the character of the L105 in a region that is certain to please music lovers from both sides of the tube/transistor discourse.

Although less expensive than our reference series models, the DAC105 and L105 are built to the high standards of construction and performance that Silbatone is famous for maintaining. We fully understand how earlier hybrid gear earned its lesser reputation as a halfway measure, but the Silbatone DAC105 and L105 require no excuses. Silbatone marries vacuum tubes and JFETs and analog and digital without any hybrid identity crises. The sound is pure Silbatone!





SQ-105 Phono Amplifier

The Silbatone SQ105 offers a flexible phono amplifier that brings home the musical performance of our reference-grade preamplifiers for a relatively moderate investment. By engineering tube-based solutions for the expensive silver transformers of the reference units, we are able to offer an unmatched combination of high-performance and economic value in this new product. Aside from saving on the high cost of extremist silver transformers, the SQ105 was developed with the uncompromising attitude that inspires all Silbatone designs.

The SQ105 is our first phono amplifier to include an integral MC head amp. This advanced design gain stage provides variable gain up to 20dB gain at remarkably low noise (250ohm equivalent noise resistance) using a German Post D3a tube. The remaining circuitry was developed for our top of the line designs. The D3A transconductance gain stage, low distortion current feedback RIAA driver, and the powerful tube output buffer are all trickle-down technologies from our reference units.

The facilities of the SQ105 are tailored to provide flexibility for the needs of the avid phono listener. Selectable load resistance and capacitance at the MC input to optimize conditions for your favorite cartridge types and two additional MM inputs are provided for high output cartridges or step-up transformer inputs. An on-board volume control allows SQ105 to be used the stand-alone basis with any power amplifier and to adjust the gain structure of your system for ease of operation with shared line amplifiers.

Silbatone Preamplifiers

Many audio products claim to be innovative but on close inspection they are not much more than recycled vintage consumer designs. We have taken on preamps as a special challenge, because we know we can do better by stepping beyond typical budget-driven design conventions. A preamplifier is the heart of any system but low level amplification has until now been a relatively underdeveloped art.

The C-100 Reference Preamplifier features a radical new transconductance amplifier circuit that provides 10,000X front end gain using our world-class silver litz wire and amorphous core step-up transformer and only one active stage. RIAA EQ is LCR type. Line section uses a silver wire input transformer volume control, a Bendix 6900 triode push-pull stage in Blumlein self-balancing configuration, and a silver-wired output transformer with 600 ohm balanced output. Only transformers and tubes exist in the signal path. Capacitors are used only for equalization. We feel that the C-100 is without competition as the finest preamp on the market today.

For people who require a separate line amplifier, the L-100 offers the output stage from the C-100 in a single chassis format with enhanced control panel. This is a modern implementation of classic studio technology built to the ultimate standard. Highly flexible and logical connections and controls are designed into the L-100 platform. Silver transformer/attenuators allow 24-step attenuation. Mute, Mono, Monitor, and Phase Invert controls are available via front panel buttons. Balanced XLR inputs and outputs are furnished in addition to multiple RCA inputs. The L-100 Line Amplifier is a superior control center for digital systems and a perfect interface for separate phono amplifiers.

Among the Silbatone line of uncompromising preamplifiers, our C-102 MKIII design stands out for rich, emotional, and enjoyable musical performance. This is a preamplifier that we can truly recommend for all music lovers. For maximum flexibility, dual silver litz step up transformers are provided to accommodate both low and medium impedance cartridges. Many phono enthusiasts use more than one turntable or multiple tonearms, with both SPU and modern MC cartridges, and the C-102 MKIII allows for input selection via a front panel control. One is no longer forced to choose between cartridge technologies because the C-102 MKIII selectable 1:10 and 1:20 MC transformers offer optimal configurations for all types!





The C-102 MKIII uses Western Electric small signal tubes in the phono section and a 12AY7/6900 line stage with a silver amorphous output transformer. Balanced inputs and outputs are provided, using a balanced configuration relay switched silver autoformers at the line input. Performance with line level sources is among the best we have heard.

We think of the C-102 MKIII as a control center for the discriminating audio generalist, featuring top-level music reproduction for multiple phono inputs and line sources. Why limit yourself to less?

For our L-103 line amplifier, we refined the classic approach taken by manufacturers of the best vintage professional studio gear. We use a powerful output tube driven by a push-pull input stage, all directly-coupled circuit without capacitors, featuring a silver-wired, amorphous core line output transformer. Our line amp configuration will drive any tube or transistor amplifier on the market, using any cable, and provide compelling depth, precision, and solidity in the musical presentation that will never happen with typical cathode follower line stages. The L-103 features a remote control switched attenuator and remote input switching for the best in modern convenience.

After one song, you will realize that you are listening to a new class of performance with Silbatone preamplifiers, the sound of progress in vacuum tube audio design!



Silbatone L-101 Line Amplifier with WE 262B Triode

Back in the 1980s, the ideal audio component was considered to be equivalent to a "straight wire with gain." At Silbatone, we know this is not enough. In the case of our L-101 Line amplifier, comparing it with a direct connection from a digital source shows that it is the direct connection that is missing something crucial to musical understanding and appreciation that our preamplifier provides. Our goal is to produce preamplifiers that make musical experience better in every way — both more vivid and more realistic, making an important contribution to listening pleasure rather than adding noise and electronic colorations to the signal as so many current designs.

The L-101 is a marvel in circuit simplicity. A silver wire input transformer allows for balanced or unbalanced inputs. A 64 step relay-switched silver wire nickel core autoformer provides adjustable gain trim to establish proper system sensitivity. A Western Electric 262B small signal triode is the primary active device in the signal path, configured in a novel "zero volt in, zero volt out" structure which is directly coupled, requiring no signal capacitors at input or output. The 262B is directly coupled to a buffer using select 8416 triodes driving silver wire output transformers, providing balanced and unbalanced connections. Bandwidth is 10Hz-200kHz with a remarkable musical presentation.

The L-101 power supply is double-regulated, with a remarkably low noise floor and featuring an extremely fast buffer optimized for audio performance sidestepping the sonic footprint that lesser regulator designs impose on musical sound. Noiseless, smooth, and natural music is our goal and sophisticated power supply approaches are essential resources for getting there.

As dedicated preamplifier specialists, Silbatone has been leading the way in low level amplification for some years but we feel that a new level of performance has been discovered with our L-101 Line Preamplifier. Those seeking the best possible line amplification need look no further!

Silbatone Phono Amplifiers

Silbatone SQ100 Mk.II Phono Amplifier

The Silbatone SQ100 Mk.II Amplifier incorporates our latest research and developments in the art of the preamplifier in a true luxury-class phono stage. The SQ100 is designed to do one job, play LP records, at the state of the art in technical performance and listener satisfaction.

As an uncompromising entry in the phono amp market, the SQ100 features separate 10X and 20X silver litz step-up transformers for low and medium impedance MC inputs, silver coil nickel core inductors in the LCR RIAA EQ, and a triode silver wired output transformer line driver for balanced and unbalanced outputs.

The D3a transconductance gain stage employed in the SQ100 is our third generation effort in refining this approach and it is unexcelled in noise and distortion performance among tube circuits, as well as dynamic and colorful musical portrayal. A particular effort was made to eliminate series capacitors in all audio circuits to maintain signal purity. Analog conditioning circuits ensure optimal DC conditions and perfect balance for the operation of each vacuum tube stage.



SQ-101 LR Phono Equalizer

Silbatone is proud of our legacy of achievement in RIAA amplifier design, including several reference-grade models in which EQ is realized using a silver wired LCR network. This year, Silbatone introduces the global audio market's first very first LR EQ phono preamplifier, The Silbatone SQ-101.

Due to novel design and careful implementation, it is now possible to eliminate not only capacitors but also resistors from the signal path, while providing precise phono equalization! Each channel of the SQ-101's simple yet sophisticated design consists of a custom-wound silver input transformer, a pair of triode-wired German Post D3a tubes, two EQ inductors, and a 8416 employed as output buffer. The sound of the SQ-101 is the sound of silver litz wiring and great tubes with very little else in the way.

The SQ-101 is deserving of a place on the same shelf as our Silbatone reference preamplifiers. The musical presentation is fresh, direct, and detailed, while retaining all of the coloratura and emotional impact that musical performance requires, an engaging sound that is guaranteed to please all vinyl enthusiasts.



SQ-102 CR Phono Equalizer

Our SQ-102 Phono Amplifier is based on the radical design of the phono section of our C-100 Reference Preamplifier, using a transconductance amplifier circuit with our world-class silver litz wire and amorphous core step-up transformer. The circuitry is all direct coupled, using capacitors only for equalization. Astonishing detail, rich tonal color, and powerful dynamics are the benefits of this novel approach.





Silbatone P-300 Mono Amplifiers

The world of audio has enjoyed a great revival of directly heated triode amplifiers, however the strengths of push-pull triode amps have been virtually neglected in the modern era. After all, the push-pull 300B Western Electric Model 86 was the premium theater amp of its day and the very famous single-ended WE 91 was an economy version!

The P-300 is our first entry into the push-pull 300B arena. This new direct-coupled, three-stage design conceived to bring the best of the 1930s into the third millennium. Although we are SE specialists, the power and dynamic accuracy of push-pull with the smooth and musical flavor of a great 300B amp provides a very exciting listening experience.

The P300 direct-coupled circuit uses a differential pair of WE310A pentodes, driving an RCA 6C8-G dual triode in a cross-coupled local feedback arrangement. The circuit is self-balancing for AC signals, providing long term stability and very high technical performance. The output stage has a separate power supply and no global feedback is used. Only silver wire and tubes are in the signal path from the input jack to the silver foil output transformer.

Our goal with the Silbatone P300 Mono Amplifiers is to do something special celebrate the glory of push-pull 300B's, the premier audio power tube of all time. Build quality of the P-300 exceeds that of all other amplifiers manufactured to date. Production of this presentation-quality instrument will be strictly limited to five pairs maximum.

Silbatone 6900SE “Mazinga” Amplifier

When this amplifier was debuted among a group of Korean audiophiles, it was named “Mazinga.” the name of a 1970s Japanese robot cartoon character who symbolized the power of technology gone wild. This amplifier only provides 0.8W output but it is a monster nonetheless!

This Mazinga amplifier takes simplicity and parts count to the extreme. The audio circuits consist of two transformers and one tube. No resistors, no capacitors. Yes, the current regulated power supply is somewhat sophisticated and complex but that is the price sometimes paid to get the best performance out of simple circuits.

While the parts in the Mazinga amplifier might be few in number, they are the finest quality pieces known to Man. The input transformer is silver wire on a high permeability core, the tube is a rare Bendix 6900 twin-triode which was only used in jet fighter avionics and the Nike Early Warning System of the Cold War. One of the highest-specification tubes ever made. The output transformers are what is really special. They are Silbatone's unique silver foil secondary units using 2kg of silver wire on unobtainable huge Finemet cores. Unbelievable material with unparalleled capability.

The end result of this adventurous project is a very lively amplifier with incredible resolution and a sense of speed and natural presentation that we found very impressive. Mazinga might earn the lowest power rating of any amplifier at the HighEnd show, but we invite you to experience what 850 milliwatts of rather ambitious simplicity can do paired with our high-sensitivity Western Electric systems, a mixture of old and new that we are happy to share with our visitors!





Silbatone RP252 and RP300 Amplifier

One very interesting program at Silbatone is our effort to shine the spotlight on rare, seldom heard, and under-appreciated vacuum tubes. The Western Electric 252A power triode is the immediate predecessor of the famous WE300B and is best known to historians and collectors as the power tube used in the WE 59B amplifier. Sadly, this tube is extremely hard to find today and quite expensive on the auction block, so very few modern listeners will get to know the 252A.

Although a beautiful piece of engineering art and historically significant, the late-1920s WE 59B amplifier is not one of the greatest amps for today's music listening. Until now, no serious attempt at a world-class 252A amplifier has been made. Silbatone decided to create a worthy platform to explore the sound of this important and triode. This is our mission, because we love this fabulous tube and we need to experience and share her ancestral voice.

The Silbatone RP252 amplifier is based on a low distortion, directly-coupled topology with no feedback in the output stage. The voltage amplifier and driver tubes, 12AY7 and 6900, are selected from the best specimens in our tube locker. The output transformer is a special in-house wound silver foil unit with a Permalloy core. Our goal is to hear what the 252A can do so we tried our best to give it a proper stage on which to perform.

Our evaluation of the RP252 Amplifier is that it provides a very tasty eight watts and it sings with an authority and depth that engages the ear and commands respect. Not bad for an 80 year old tubes!

A 300B version, the RP300, which shares the inspiration and design of the RP252 is also available. If you want to experience the highest level of performance available in a medium-power single triode amp, you must audition the RP-300 and RP-252. A revelation for newcomers and old hands alike!

Silbatone Silver Integrated Amplifiers

For over a decade, Silbatone has led the way with the finest stereo integrated tube amplifiers ever produced. The latest generation of our famed Ji-300 series, the Mark III, maintains our tradition of quality, value, and performance, with significant upgrades over previous models. As with all Silbatone products, build quality is far beyond other commercially-produced amplifiers. Teflon boards and silver internal cabling are employed for ultimate musicality and detail and our exclusive semi-silver foil output transformer, built on exotic nickel material, pushes the limits of output transformer performance.

The Reference 300 silver signature, our flagship 300B single amplifier, now features all directly-coupled circuitry for maximum purity and quality of musical reproduction. The new driver stage features a current feedback architecture using premium 7062 and 5687 dual triodes for very low distortion, large signal performance at an impressive bandwidth – 180Vp-p, -3dB at 20khz into 100k ohms – a level of performance rarely achieved in any tube or solid state designs. There is little in the signal path except triode tubes and silver wire and no error correction or feedback is used in the final stage, an elegant solution that imparts very little of its own character, allowing the flavor of the 300B output stage and silver foil secondary output transformer to be presented in all its simple beauty.

The new Reference 300 Silver Signature version features remote-controlled sixty position (1dB/step) volume switching using a pure silver autoformer to provide the ultimate in sonic and ergonomic satisfaction.

The Ji-300 and Reference 300 series are easily the ultimate integrated amplifiers in existence today and we are quite confident that they are among the very finest music amplifiers on the market, even when compared to our own more expensive products. We achieve the highest musical potential of the classic WE300B triode with innovative designs engineered for today's world-class systems.



Reference 300 Silver Signature

Ji300 MKIII