

est. 1991



Genesis Tribute

A 20th Anniversary Celebration

The Genesis Tribute loudspeakers are designed by Genesis Advanced Technologies' designer and CEO Gary Leonard Koh as a tribute to Arnie Nudell, the founder of Genesis loudspeakers and all the technologies he invented. It features the iconic wide wings introduced to audiophiles and music lovers with the IRS: the servo-woofer, the dipole line-source, the planar magnetic midrange and tweeter and a crossover that is "as simple as possible, but no simpler." In addition, it showcases the advanced technologies of modern materials, a suspension with alignment/azimuth adjustment and 20 years of evolution and improvements.

Arnie Nudell's Legacy – 50 years of High-End Audio

In 1970, Arnie introduced the world to the servo-controlled bass system with the Infinity™ Servo-Statik 1. He also defined "High-End Audio" – J. Gordon Holt called the SS-1 "appallingly expensive" but when he "finally had to let it go..... still feel rather as though a member of the family has passed away." Launched in 1970, the Infinity Servo-Static 1 was the same price as a Volkswagen Beetle.

Arnie was one of the best loudspeaker designers of all time. Owners of his loudspeakers, going back to the RS1, IRS, Beta, Kappa and the various Genesis models, will never get off the "Nudell train" and will keep the same loudspeakers for the rest of their lives. The trifecta of awesome bass, midrange clarity and airy highs keep owners devoted and addicted.

Servo-Controlled Bass

As a physicist, Arnie recognized that real-world physics prevented a woofer from accurately responding to the music signal because of its mass, which follows the laws of inertia and momentum. Inertia causes the woofer to be slow to start. Then when it is moving, momentum keeps it moving, even after the audio signal has stopped. Servo-control uses amplifier power to overcome inertia, and then more power to defeat momentum. With servo-control and

enough power, the woofer can be made to appear massless in order to more accurately respond to the musical signal. It starts immediately and stops on a dime, precisely what an ideal woofer should do.

Planar Magnetic "Ribbon" Transducers

To match the "massless" woofers, Arnie developed the Electro-Magnetic Induction Tweeter (EMIT) and the Electro-Magnetic Induction Midrange (EMIM), with voice-coils etched on a substrate. The extremely light diaphragms of the EMIT and EMIM were as fast in the highs and mids as the servo-controlled woofers were in the bass.

Line-Source Loudspeakers

Arnie introduced the line-source loudspeaker to music lovers in 1976 with the Infinity QLS-1. A line-source reproduces music as a cylindrical waveform which attenuates at 3dB with every doubling of distance, whereas a point source (with a conical waveform) attenuates at 6dB with every doubling of distance. Since small changes in distance result in much smaller changes in loudness, the sweet-spot for a line-source loudspeaker is much larger than a conventional point-source loudspeaker.

With greater efficiency, less power is required, resulting in a loudspeaker that sounds more relaxed



and effortless, with greater transparency and dynamics. Another advantage is that the seating height does not matter. Without vertical dispersion, there is no sound bouncing from the ceiling and floor to interfere with rock-solid imaging.

Dipolar Radiation Pattern

With the IRS, Arnie also brought the wide-winged dipole loudspeaker to the music lover. This brought the advantages of ease of placement and a more natural, spacious sound. The dipole radiation pattern reduces the energy emanating from the sides of the speakers which also means that you don't need to use acoustic treatment at "the point of first reflection". Together with the line-source, wall bounce, ceiling bounce and floor bounce are reduced. This allows the listener to experience the music as recorded, without distracting reflections and room interaction which plague most other speaker systems.

Musical Amplification

While they delivered reference quality sound, Arnie's crossover designs unfortunately ate amplifiers for lunch. Hence, he brought audiophiles a bunch of great amplifier designs too. The Infinity HCA was the first hybrid tube/solid-state amplifiers with tubes in every stage except at the output, for which he used power transistors in Class A mode. The Infinity DSP SWAMP (SWitching AMPlifier) was the first high-end audio Class D amplifier in the world. The Genesis Stealth amplifier had adjustable bias and could go from full Class A to full Class B and everywhere in between.

30 years of Genesis Development

When Arnie founded Genesis Technologies in 1991, he designed a round version of the EMIT which he called the Genesis Ribbon Tweeter – nevertheless, it was still a planar magnetic tweeter. For the mid-range, instead of using multiple EMIM in an array to achieve a pseudo line-source, Arnie used a single 60-inch midrange planar magnetic midrange sourced from Carver Corporation, and later, 48-inch and 72-inch versions from Bohlender-Graebner. The Genesis 1 introduced in 1993 had six servo-circuits per woofer tower, instead of the single one in the IRS V.

The Genesis Tribute pays homage to all the technologies invented by Arnie Nudell (except for the part about eating amplifiers), improved and evolved by Genesis Advanced Technologies' designer Gary Koh.

Gary is an autodidact. In the first exercise of his mathematical design chops, Gary redesigned the servo-control circuitry in 2005 to react faster and using less feedback to get a more natural and musical result. Gary launched the Genesis Ring-Radiator Ribbon Tweeter in 2013, improving the dispersion of the original Genesis round tweeter to match the horizontal dispersion of the EMIT with even better vertical dispersion.

In 2016, he redeveloped the Genesis midrange ribbon, carefully selecting modern films and materials to reduce distortion and improve power handling. Gary's crossover designs are easier to drive and more coherent across the audio frequency spectrum.

The Tribute embodies all of Arnie's legacy technologies and adds 15 years of evolution under Gary. In style, the Genesis Tribute harkens back to the broad wings of Arnie's vintage designs with a modern aesthetic to make an elegant statement.

To the Future and Beyond

When Gary founded Genesis Advanced Technologies in 2002, he hired Arnie as Chief Designer and learned from him until Arnie's retirement in 2006. Gary continued over the years to understand and improve upon the engineering to build the best possible version of Genesis speakers, keeping the core philosophy of sound reproduction intact: resolution of the smallest difference of dynamic contrast from *ppp* to *fff*; preservation of harmonic integrity and rhythm; and re-creation of the ambience and space of the performance.

The Genesis Tribute is a statement of Genesis Advanced Technologies today: Built on an exemplary foundation, advancing with the latest innovations in materials and technology for absolute fidelity®.

absolute fidelity™
