

Keith O. Johnson is widely known for his recordings and for his contributions to entertainment technology. His legacy began with a three channel magnetic tape recorder and ribbon microphones built in high school, which earned him a scholarship and training program from Ampex Corp. At Stanford University, he recorded musical groups and constructed a solid-state portable machine that would ultimately record and master well over 100 record releases for Reference Recordings and others. This machine introduced radio-frequency bias methods and photolithography construction of recording heads, to significantly advance the state of recording art. He consulted to Sherman Fairchild, who licensed this “focused gap” technology for recorders he built for RCA.

Johnson was a founder of and partner in Gauss Electrophysics, where he applied similar recording methods and a new patented method of air suspension of tape to standardize and dominate the high-speed tape duplication industry for years. MCA acquired Gauss, and Johnson’s patented contributions to optical disc memory became very important at that time.

He made many orchestral recordings for the Armed Forces Radio, and this part time activity allowed Johnson to test and improve his discrete component electronics, FM condenser microphones and active speaker technology. During that time, he developed an optical scanner to remove noise from damaged motion picture sound tracks. Famous movies are still being restored with the device.

While mentoring with Ambrosia, a rock band, he collaborated with Alan Parsons to create an expressive polyphonic sampler, the “Projectron.” Its outstanding imitations of instruments appeared in popular albums, created controversy and ultimately helped pioneer a major industry. The “Parsons Project” albums made during their collaboration became huge best sellers.

He has been Technical Director of Reference Recordings since 1980. Early on, he applied his well-practiced recording methods with half speed mastering expertise from Stan Ricker to spawn exceptional phonograph record releases that received numerous awards and continue to be the best of their kind. With producer and RR founder Tam Henderson, Johnson continues to record and release the finest quality compact discs, which now total over 120 titles.

To improve the “compact disc”, he was a founding partner in Pacific Microsonics where he contributed important parts of the HDCD process. Johnson’s ideas: morphing filters, hidden codes in dither, conversion sequences or pipelines are amongst the first of their kind. Unparalleled conversion accuracy is manifest in the Model 1 and 2 HDCD encoders, which most consider second-to-none. Microsoft bought the company and hired Johnson as their consultant, and while working for them he invented a speaker correction method to remove object related sounds. Johnson helped Microsoft develop a system based on generic speaker models and simplified files that is bundled with Windows XP software to improve computer speaker sound.

His invited participation in the UCLA School of Recording Arts planning committees helped emphasize technical and perceptual aspects of music production. He also continues to work with educational and historical committees for NARAS.

Johnson has been a prolific designer of pro and consumer audio equipment. The manufacturer Spectral Inc. has produced high-end audio equipment from his designs for decades. Many of the most expensive audio and home theater installations feature this equipment due to their unmatched performance. Spectral components of his design have received critical acclaim, have become highly collectable and have been produced for almost 20 years.

Some of the many awards for Johnson’s work include:

- 2 Grammy winning releases, 7 nominations for Best Engineered Classical Recording,
- a Silver Medal (Lifetime Achievement Award) from the Audio Engineering Society,
- 2 Naird Indy winners for Best Recording,
- 2 Absolute Sound Golden Ear awards,
- and 3 awards from the Academy Advancing High Performance Audio.

Multi-channel processing for large screen sound is a currently a great interest for Johnson. He is also investigating and consulting on hearing physiology and hearing correction. He plays keyboard instruments and is a competitive middle distance runner.
